

U.S. Coast Guard Oceanographic Report

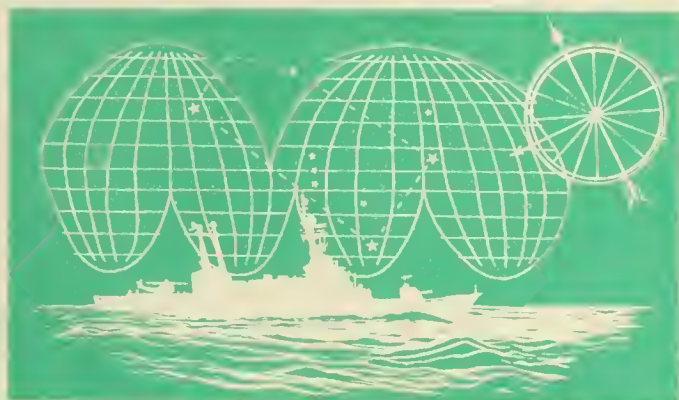
UNITED STATES COAST GUARD
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OCEANOGRAPHIC OBSERVATIONS
NORTH ATLANTIC OCEAN STATION BRAVO

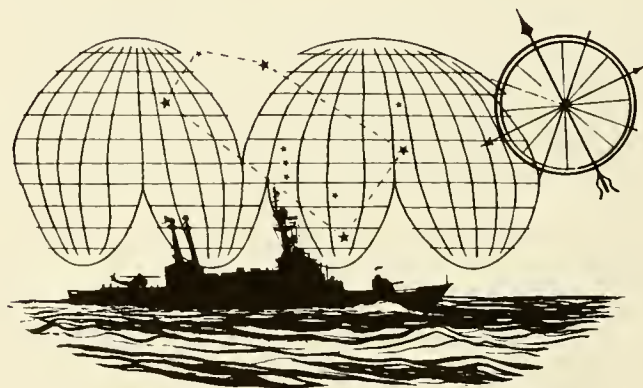
October 1966-October 1967



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REPORT No. 20

CG 373-20

OCEANOGRAPHIC OBSERVATIONS
NORTH ATLANTIC OCEAN STATION BRAVO
56° 30' N., 51° 00' W.

October 1966-October 1967

By Joseph L. Shuhy



WASHINGTON, D.C.



JULY 1969



Frontispiece: USCGC HUMBOLDT, a 311 Ft. High Endurance Cutter; Homeport: Portland, Maine.

Abstract

This report contains the observed and interpolated temperature and salinity data, plus the computed σ_t , geopotential anomalies and sound velocities for 125 oceanographic stations taken by seven U.S. Coast Guard Cutters occupying Ocean Station BRAVO (centered at 56°30' N., 51°00' W.) during October 1966–October 1967. They were the USCGC DUANE, 8–28 October 1966; USCGC McCULLOCH, 24 November–12 December 1966; USCGC HUMBOLDT, 7–31 January 1967; USCGC BIBB, 24 February–14 March 1967; USCGC ESCANABA, 6–24 April 1967; USCGC SPENCER, 27 May–6 June 1967; USCGC SEBAGO, 29 June–21 July 1967; USCGC McCULLOCH, 14 August–5 September 1967; USCGC SPENCER, 29 September–23 October 1967. Casts of 14 levels were made to 1,500 meters when weather and operating conditions permitted. An attempt was made to extend sampling to near the bottom once on each patrol.

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Introduction

Ocean Station BRAVO is located in the North Atlantic Ocean at latitude $56^{\circ}30'$ N. and longitude $51^{\circ}00'$ W. This station has been monitored since January 1964. The first report on the data collected at this ocean station covers the period of time January–April 1964, including 46 Oceanographic Stations. The results of this initial study are published in the Coast Guard Oceanographic Report No. CG 373–7. The second report, Coast Guard Oceanographic Report No. CG 373–9, covered the period August 1964–August 1965 during which time 73 oceanographic stations were taken at BRAVO. The Coast Guard Oceanographic Report No. CG 373–14 was the third in the series. This report covered the period October 1965–September 1966 during which time 68 stations were taken.

This is the fourth report of the series and covers the period October 1966–October 1967 during which time 125 oceanographic stations were occupied. Data from the previous reports are used to show the variations of temperature and salinity for the past four years.

Procedures

During the period October 1966–October 1967 U.S. Coast Guard cutters were instructed to take daily Nansen casts, weather and operating conditions permitting, while occupying Ocean Station BRAVO. These casts were made at 14 prescribed levels to 1500 meters. They were also instructed to take at least one deep cast as close to the bottom as practicable during each patrol. On shallow casts the prescribed sample depths were as follows: 0, 25, 50, 100, 150, 200, 250, 300, 400, 500, 600, 800, 1000, and 1500, meters. The prescribed depths for the deep casts were 2000, 2500, 3000, and 150 and 50 meters off of the bottom.

Two deep-sea reversing thermometers were attached to each Nansen bottle. Between the depths of 200 and 1500 meters an unprotected thermometer was also used on four to five

Nansen bottles to determine thermometric depths. Depths which were determined thermometrically are preceded by a "T" in the station data, Tables I–IX. Field observations were returned to the Coast Guard Oceanographic Unit (CGOU) for reduction to "in situ" temperature and determination of sample depths. The procedures used in recording and processing of the thermometric data are similar to those in the U.S.N.H.O. Pub. No. 607(1955) and Lafond (1951). The CGOU used a Digital Equipment Corporation PDP–5 computer to determine corrected temperatures for the protected thermometers and determine the thermometric depth of the unprotected thermometers.

Water samples were drawn from each Nansen bottle and stored in citrate bottles for salinity determinations. The salinity was determined aboard ship using induction salinometers. Duplicate samples were drawn from the top and bottom bottles of each cast and delivered to CGOU for quality control purposes when the vessel returned to port.

The processed temperature and salinity data were recorded on form NHO/NODC–3167/1 (1–61), "Physical and Chemical Data form for Oceanographic Stations" and delivered to the National Oceanographic Data Center (NODC). The interpolated temperatures and salinities for standard depths, sigma-t, specific volume anomalies (ΔD), and sound velocities were computed by NODC and are presented in Tables I–IX.

The Ocean Station vessels are normally required to maintain station within a ten-mile square grid. The actual positions of the stations taken on each patrol are shown in figures 3–11. Forty of the 125 stations taken were outside of the ten-mile grid.

The USCGC DUANE occupied 11 oceanographic stations during the period 8–28 October 1966. Nine of the casts were to depths ranging from 1273 to 1775 meters. One station

had useful data only to a depth of 620 meters. One deep station was taken to a depth of 3574 meters in a water depth of 3612 meters. The water depth of all stations ranged from 3450 to 3658 meters. Figure 3 shows the distribution of the stations taken during this patrol. All oceanographic data collected by the Ocean Station vessels were transmitted via radio teletype to the CGOU for real time processing and quality control. The data are listed by NODC as Ref. No. 31-771 DU and as Table I of this report.

The USCGC McCULLOCH occupied eight oceanographic stations from 24 November to 12 December 1966. Due to bad weather three stations were sampled to depths of only 716, 412, and 400 meters. Four stations were sampled to depths ranging from 1324 to 1621 meters, and one deep cast of 2875 meters was made in a water depth of 3621 meters. Figure 4 shows the distribution of stations about BRAVO. The data are listed by NODC as Ref. No. 31-819 ML and as Table II of this report.

During the period 7-31 January 1967, twenty oceanographic stations were taken by the USCGC HUMBOLDT. Difficulties prevented the taking of useful data below 285 and 398 meters on two stations. Seventeen oceanographic stations were taken between the depths of 1348 and 1729 meters. One deep cast was taken to a depth of 3396 meters. The distribution of stations is shown in figure 5. The data are listed by NODC Ref. No. 31-870 HU and as Table III of this report.

Nine oceanographic stations were taken by the USCGC BIBB from 24 February to 14 March 1967. Eight of these stations were shallow casts ranging from 1314 to 1580 meters. One deep station to 3545 meters was taken in water 3567 meters deep. The water depth at all stations ranged between 3475 and 3613 meters. The distribution of these stations is shown in figure 6. The data are listed by NODC Ref. No. 31-875 BX and as Table IV of this report.

During the period 6-24 April 1967, twelve oceanographic stations were taken at Ocean Station BRAVO by the USCGC ESCANABA. One station had useful data to a depth of only 399 meters, and eleven stations had data to depths between 1342 and 1592 meters. Due to a flaw in the cable, no deep casts could be made during this patrol. The distribution of these

stations is shown in figure 7. The data are listed by NODC Ref. No. 31-887 EN and as Table V of this report.

The USCGC SPENCER occupied Ocean Station BRAVO between 27 May and 6 June 1967. At all nine stations samples were taken that ranged in depth from 1413 to 1899 meters. All stations had water depths between 3567 and 3658 meters. No deep stations were taken. The distribution of these stations is shown in figure 8. The data are listed by NODC Ref. No. 31-1063 SC and as Table VI of this report.

Twenty-two oceanographic stations were taken during the period 29 June-21 July 1967 by the USCGC SEBAGO. During this highly successful monitoring of station BRAVO, twenty-one shallow casts were taken that ranged in depth from 1392 to 1607 meters. One deep cast to a depth of 3541 meters was taken in 3658 meters of water. The distribution of these stations is shown in figure 9. The data are listed by NODC Ref. No. 31-1092 S5 and as Table VII of this report.

Ocean Station BRAVO was again occupied by the USCGC McCULLOCH from 14 August to 5 September 1967. Of the twenty-one stations taken, three had maximum sample depths of 1092, 1021, and 1060 meters, while seventeen stations had maximum sample depths ranging from 1312 to 1784 meters. One deep cast was made to 3461 meters in 3475 meters of water. The distribution of these stations is shown in figure 10. Three of the stations are not shown because they were taken beyond the boundaries of the figure. The data are listed by NODC Ref. No. 31-1157 ML and as Table VIII of this report.

The USCGC SPENCER occupied station BRAVO for a second time from 1-20 October 1967. One shallow cast resulted in useful data only to a depth of 258 meters, six stations had useful data to depths that ranged from 936 to 1211 meters, and the remaining six shallow casts had a range of from 1395 to 1652 meters. One deep cast to 2438 meters was made. The distribution of these stations is shown in figure 11. The data are listed by NODC Ref. No. 31-1174 SC and as Table IX of this report.

Discussion

The data from the nine patrols at Ocean Station BRAVO cover a one year period from 8

October 1966 to 20 October 1967. The data of these nine patrols, as well as that gathered since January 1964, have been carefully studied in the preparation of this report. With the help of the data collected on the previous patrols, the variations of temperature and salinity since January 1964 have been included in this report.

Figures 12–20 show the vertical envelopes of temperature vs. depth for each of the nine patrols. Figure 12 shows the thermocline to be expected during the month of October. During this month the surface temperature varied between 6.14 and 7.09° C. The surface layer extended down to about 50 meters. The main thermocline was limited to the region between 50 and 100 meters where an average decrease of 2.40° C/50 meters was found. There was a slight temperature inversion between 100 and 150 meters, after which the temperature gradually decreased with depth.

The effects of the start of winter cooling are depicted in figure 13. The surface temperature ranged from 4.85 to 3.99° C. with the exception of one station where the surface temperature of 5.59° C. penetrated to a depth of 50 meters. The data for this station have been carefully checked and are considered valid. Although not defined in figure 13, there were two inversions in the top 150 meters of the water column on most of the stations taken during this patrol.

During the January 1967 patrol of the HUMBOLDT the surface temperature ranged from 3.51 to 3.96° C. as shown in figure 14. For the most part, the temperature decreased with depth; however, there was an occasional increase of temperature with depth (six out of 20 stations). The maximum temperature in the water column was found between 200 and 250 meters during the first part of the month. Toward the end of the month this maximum temperature decreased both in value and in depth as a result of lateral mixing.

This mixing continued through the patrols of both the USCGC BIBB (figure 15) and the USCGC ESCANABA (figure 16). During the BIBB patrol the temperature experienced a slight increase with depth, the depth of the maximum temperature remaining close to the 400 meter level but occasionally shifting down to 600 meters. This maximum temperature

range was 3.69–3.97° C. compared to a surface temperature range of 3.41–3.52° C. By the start of the April patrol, the temperature inversion had all but disappeared, and by the end of April the surface temperature had decreased to 3.37° C. As a result there was a gradual increase in temperature with depth throughout the water column.

Toward the end of May, warming in the upper 100 meters of the water column was noticeable (figure 17). Daily fluctuations of up to 0.42° C. occurred in the surface temperature, but below the 100 meter level the temperature remained relatively constant.

By late June the surface temperature had risen to a range of 5.75–8.41° C. There was a large temperature gradient in the upper 100 meters and a slight increase in temperature in the 100–200 meter range over the previous month (figure 18).

The surface temperature continued to increase until it reached a maximum in late August and early September (figure 19). This maximum temperature was in the neighborhood of 9.5° C. The maximum temperature gradient was still in the upper 100 meters. However, the effects of summer warming were apparent down to about 450 meters.

The surface temperature began to drop during October (figure 20). The maximum temperature gradient was still located in the upper 100 meters and the effects of warming had penetrated to 600 meters.

Figure 21 represents the variation in temperature in the upper 400 meters at Ocean Station BRAVO. Monthly averages were computed from Nansen cast data collected by the Coast Guard since it started monitoring the station in January 1964.

The most noted feature is the regularity with which the temperature varies at all four levels during each 12 month period. At the surface a maximum temperature of about 9.5° C. occurs in late August and early September for all years except 1964, and the minimum usually occurs in March with a temperature range of 3–3.5° C.

At the 50 meter level the maximum temperature lags the surface maximum by about six weeks, occurring in October. This maximum temperature (6.5° C.) is the same temperature as that at the surface at this time. The tempera-

ture at the 50 meter level then approximately coincides with the surface temperature until April when it rises more slowly than the surface temperature.

The 100 meter temperature follows the same general pattern reaching a maximum of between 4 and 5° C. in November. Once again this is the same temperature as that of the surface at this time.

The 400 meter temperature also has a pattern, but not quite the same as the upper levels. The 400 meter level descends to a minimum temperature (3.35° C) in April, and then increases gradually. At the end of December its temperature is higher than that in the upper levels. It then decreases and continues in the same general pattern.

The vertical salinity envelopes are presented in figures 22-30. As shown in figure 22, the surface salinity during October 1966 ranged from 34.56 to 34.66‰ with the halocline situated between 100 and 300 meters. Below this level there was an inversion extending down to about 600 meters of about 0.04‰/300 meters. Below the inversion the gradual increase in salinity with depth continued.

From November through March there was a gradual increase in the surface salinity with a corresponding increase of the mixing depth. During the 24 November-12 December 1966 patrol of the USCGC McCULLOCH the surface salinity increased to a range of 34.61-34.66‰ (figure 23). The mixing depth had increased 50 meters over that of the previous month to 100 meters.

Through the month of January the surface salinities increased to a range of 34.67-34.85‰. A fairly large gradient was present during the first part of the month. However, by the end of January this had been reduced substantially with mixing occurring down to 300 meters (figure 24).

Figure 25 shows a column of isohaline water whose lower limit varied between 400 and 550 meters. The surface salinities ranged only from 34.79 to 34.83‰.

By April the halocline had all but disappeared and the surface salinities had again increased, the range at that time being 34.82-34.86‰. This relatively isohaline column quickly disappeared in May as indicated by figure 27. The surface salinity dropped

(34.75-34.84‰) and maxing occurred only in the upper 100 meters. The next four months experienced a continual decrease in surface salinity, greater salinity gradients, and a decrease in the mixing depth to 50 meters.

The monthly averages of salinity for 4 levels (0,50,100,400 meters) are plotted in figure 31. As was seen in the corresponding plot for temperature, there are definite variations that occur within each year. The surface salinity reaches a minimum in September (≈ 34.52 ‰). The salinity then increases until November after which there seems to be a secondary salinity minimum in December. There is a rather sharp increase in salinity in January which then becomes more gradual until a maximum is reached in April.

The variation of salinity at the 50 meter level is somewhat more erratic than at the surface. The salinity minimum appears to occur in October with a secondary minimum in December. Sufficient data have not been collected during these winter months to accurately determine the complex variations of salinity for this time of year. From December through May the salinity at the 50 meter level follows the surface salinity quite closely. There appears to be another salinity minimum in August.

At the 100 meter level the salinity minimum occurs in December. There seems to be little rhyme or reason for the monthly variation of salinity at the 400 meter level. This is probably due to the fact that the 400 meter level is not directly influenced by surface effects, but is influenced by lateral motion and diffusion instead.

In Figure 32 are plotted the annual variations of temperature at various depths for the period from January 1964 to October 1967. This plot tends to bring out the striking similarity of the temperature variation each year. Figure 33 is a similar plot for salinity. Once again this similarity is noticed.

Summary

The nine patrols at Ocean Station BRAVO during the period 8 October 1966-20 October 1967, plus data collected during previous periods, present a fairly clear picture of the variations of temperature and salinity vs. depth. The monthly and seasonal variations of temperature, and to a lesser degree salinity, have

been quite regular for each of the years 1964-1967, with the maximum surface temperature occurring in late August and early September, and the minimum generally occurring in April.

The primary salinity minimum of the surface occurs in September with a secondary minimum following three months later in December. The salinity maximum coincides with the temperature minimum in April.

A comparison of figures 21 and 31 shows that the depth of penetration of the surface temperature is controlled by the halocline. Since the halocline is present throughout the major part of the year, it appears as though there would be little overturn of the water column in the vicinity of Ocean Station BRAVO.

However, this can not be substantiated until parameters other than temperature and salinity are studied on a time series basis in this vicinity.

Literature Cited

- Husby, D. M., 1967 Oceanographic Observations at North Atlantic Station BRAVO, August 1964-1965, U.S. Coast Guard Oceanographic Report No. CG 373-9
- Husby, D. M., 1967 Oceanographic Observations at North Atlantic Station BRAVO, October 1965-September 1966, U.S. Coast Guard Oceanographic Data Report No. CG 373-14
- McGary, J. W., 1965 Oceanographic Observations at North Atlantic Station BRAVO, January-April 1964, U.S. Coast Guard Oceanographic Data Report No. CG 373-7

Oceanographic Reports of Coast Guard Oceanographic Unit

NO.

- CG-373-1. Gladfelter, W. H., et al (1964) Oceanographic Cruise USCGC NORTHWIND, Bering and Chukchi Seas, July-September 1962.
- CG-373-2. Morse, R. M. and J. W. McGary (1964) Oceanographic Observations at North Atlantic Ocean Station ECHO, 35° N., 48° W., January-February 1963.
- CG-373-3. McGary, J. W. and R. M. Morse (1964) Oceanographic Observations at North Atlantic Ocean Station DELTA, 44° N., 41° W., March-April 1963.
- CG-373-4. Kollmeyer, R. C., J. M. McGary and R. M. Morse (1964) Oceanographic Observations, Tropical Atlantic Ocean, EQU-ALANT II August 1963. (Out of Print.)
- CG-373-5. Franceschetti, A. P., D. A. McGill, N. Corwin and Elazar Uchupi (1964) Oceanographic Observations, Kennedy Channel, Kane Basin, Smith Sound and Baffin Bay, Summer 1963.
- CG-373-6. Gladfelter, W. H., et al (1965) Oceanographic Cruise, USCGC NORTHWIND Chukchi, East Siberian and Laptev Seas, August-September 1963.
- CG-373-7. McGary, J. W. (1965) Oceanographic Observations at North Atlantic Ocean Station BRAVO, January-April 1964.
- CG-373-8. Husby, D. M. (1966) Oceanographic Observations at North Atlantic Ocean Station CHARLIE, June 1964-January 1965.
- CG-373-9. Husby, D. M. (1967) Oceanographic Observations at North Atlantic Ocean Station BRAVO, August 1964-August 1965.
- CG-373-10. Kollmeyer, R. C., et al (1965) Oceanography of the Grand Banks Region and the Labrador Sea in 1964.
- CG-373-11. Kollmeyer, R. C., et al (1966) Oceanography of the Grand Banks Region of Newfoundland in 1965. (Out of Print.)
- CG-373-12. Kollmeyer, R. C., et al (1967) Oceanography of the Labrador Sea in the vicinity of Hudson Straits in 1965.

NO.

- CG-373-13. Wolford, T. C. Oceanography of the Grand Banks Region and the Labrador Sea in 1966. (In Prep.)
- CG-373-14. Husby, D. M. (1968) Oceanographic Observations North Atlantic Ocean Station BRAVO, October 1965-September 1966.
- CG-373-15. Husby, D. M. (1968) Oceanographic Observations at North Pacific Ocean Station VICTOR, December 1964-August 1966.
- CG-373-16. Palfrey, K. M. Oceanography of Baffin Bay and Nares Strait in the summer of 1966. (In Prep.)
- CG-373-17. Husby, D. M. Oceanographic Observations at North Atlantic Ocean Station CHARLIE, May 1966-March 1967. (In Prep.)
- CG-373-18. Husby D. M. (1968) Oceanographic Observations at North Pacific Ocean Station NOVEMBER, July 1966-February 1967.
- CG-373-19. Morgan, C. W. Oceanography of the Grand Banks Region of Newfoundland in 1967. (In Prep.)
- CG-373-21. Shuhy, J. L. Oceanographic Observations at North Atlantic Ocean Station ECHO, October 1966-October 1967. (In Prep.)
- CG-373-22. Stanley, D. J. and G. Kelling. Smithsonian Geological Investigation of Wilmington Submarine Canyon, USCGC ROCKAWAY, 4-10 December 1967. (In Prep.)
- CG-373-23. Husby, D. M. Oceanographic Observations at North Atlantic Ocean Station DELTA, July 1966-August 1967. (In Prep.)
- CG-373-24. Husby, D. M. Report of Oceanographic Cruise, USCGC NORTHWIND, Northern Bering Sea-Bering Strait-Chukchi Sea, July 1967. (In Prep.)
- CG-373-25. Garcia, A. W. Oceanographic Results of Kara Barents Sea Survey 1967. (In Prep.)

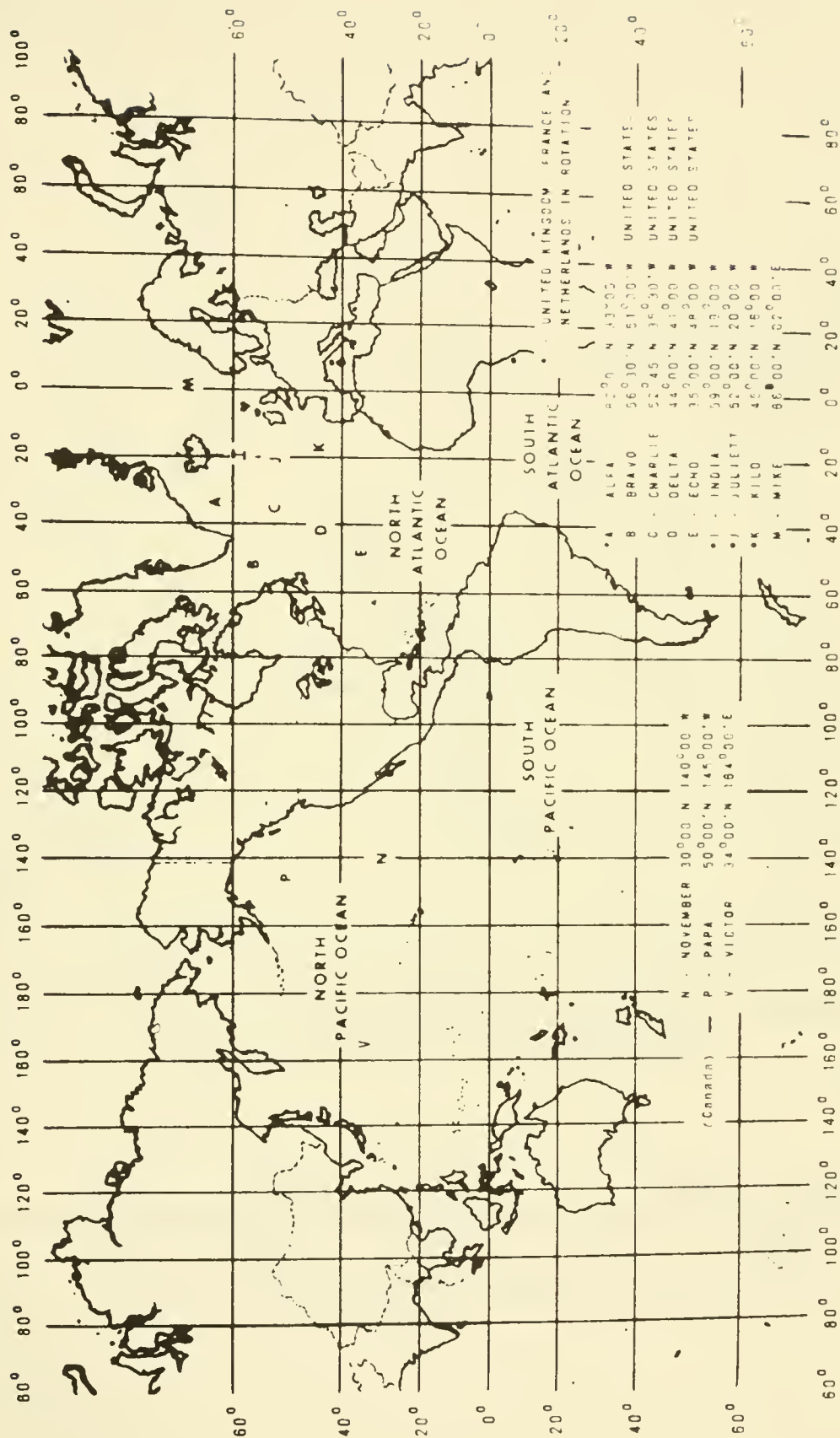


Figure 1. Chart of all Ocean Stations in the world.



Figure 2. Bathymetric chart of Ocean Station BRAVO, (contoured in fathoms).

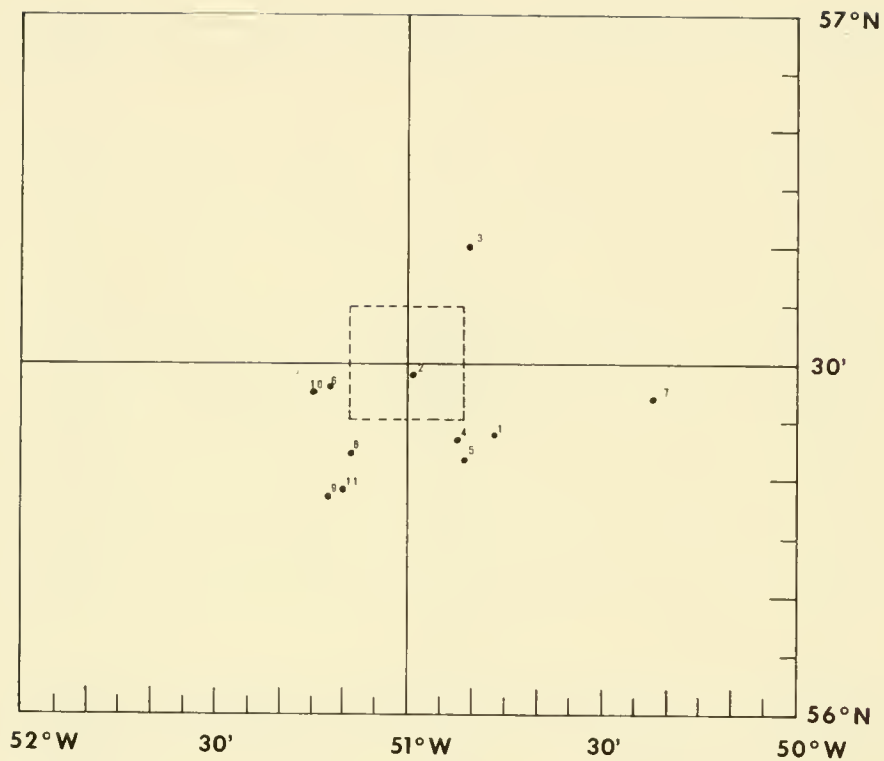


Figure 3. Positions of oceanographic stations taken by USCGC DUANE during 8-28 October 1966 at Ocean Station BRAVO.

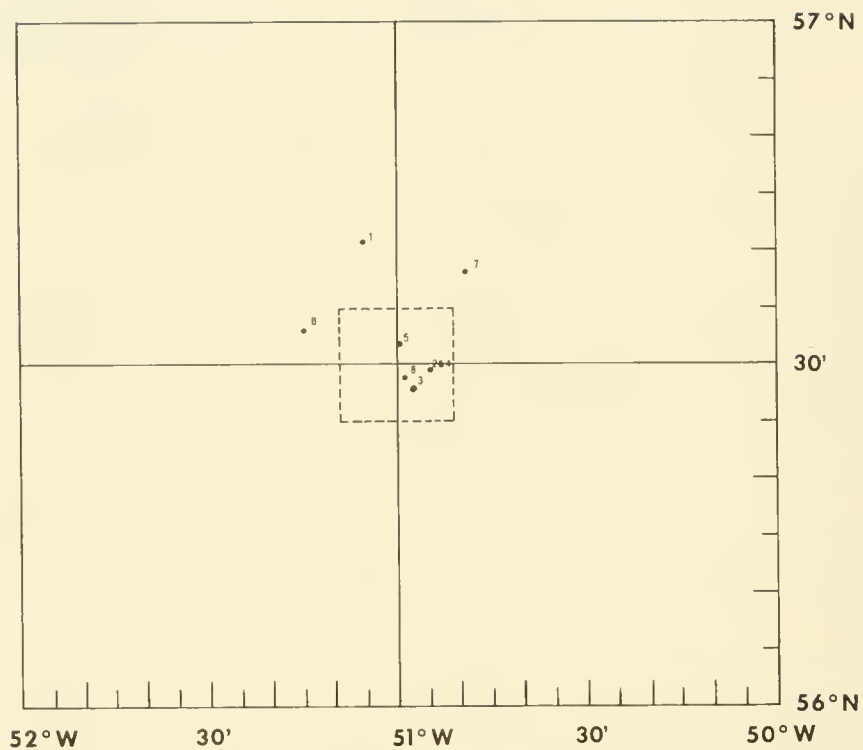


Figure 1. Positions of oceanographic stations taken by USCGC McCULLOCH during 24 November–12 December 1966 at Ocean Station BRAVO.

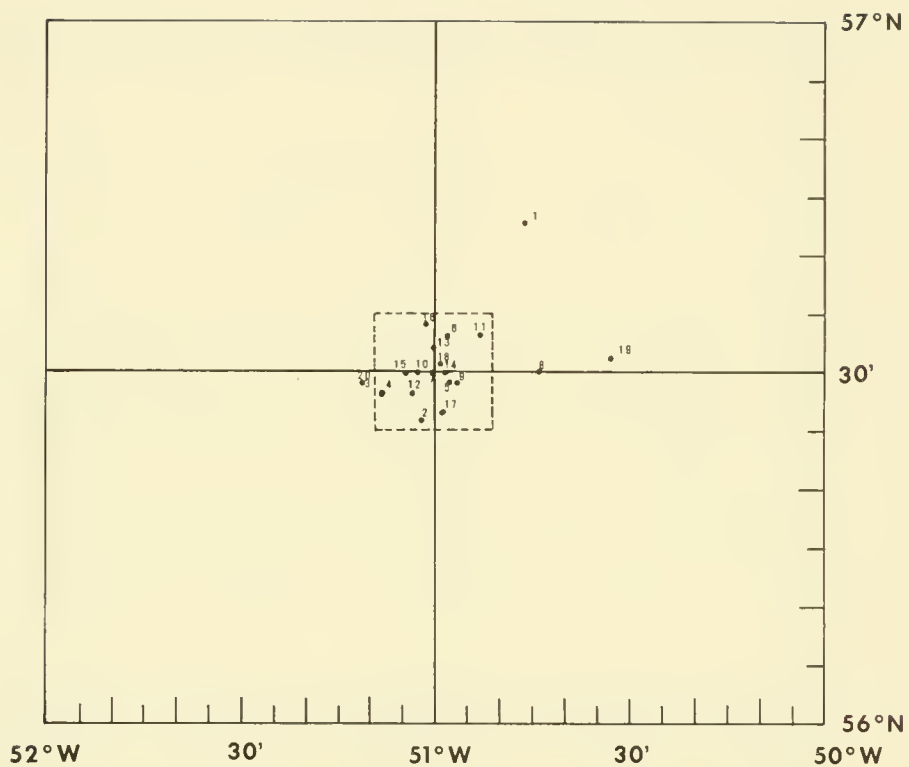


Figure 5. Positions of oceanographic stations taken by USCGC HUMBOLDT during 7-31 January 1967 at Ocean Station BRAVO.

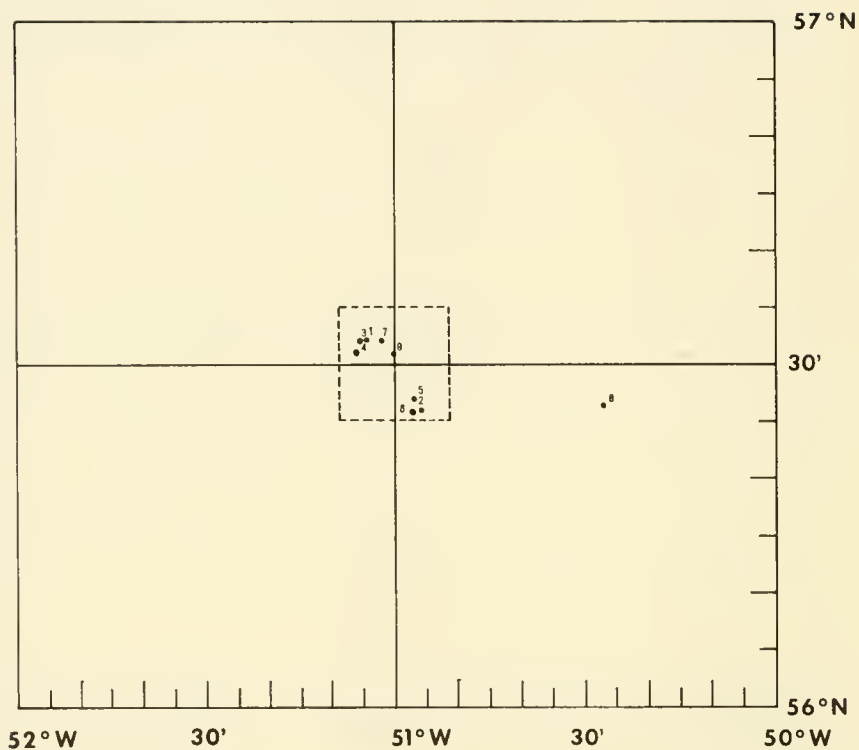


Figure 6. Positions oceanographic stations taken by USCGC BIBB during 24 February-14 March 1967 at Ocean Station BRAVO.

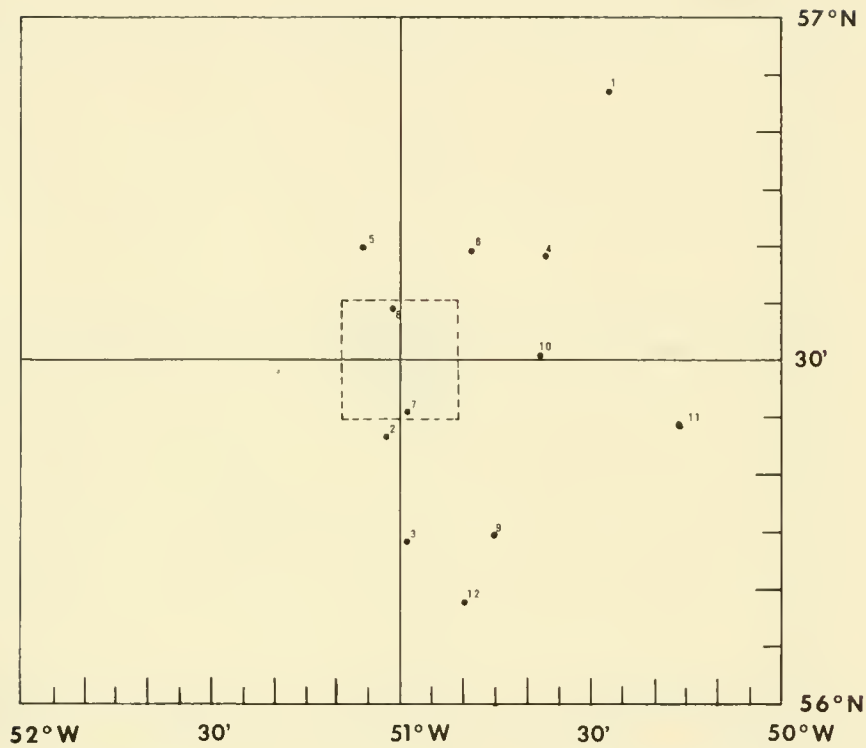


Figure 7. Positions of oceanographic stations taken by USCGC ESCANABA during 6-24 April 1967 at Ocean Station BRAVO.

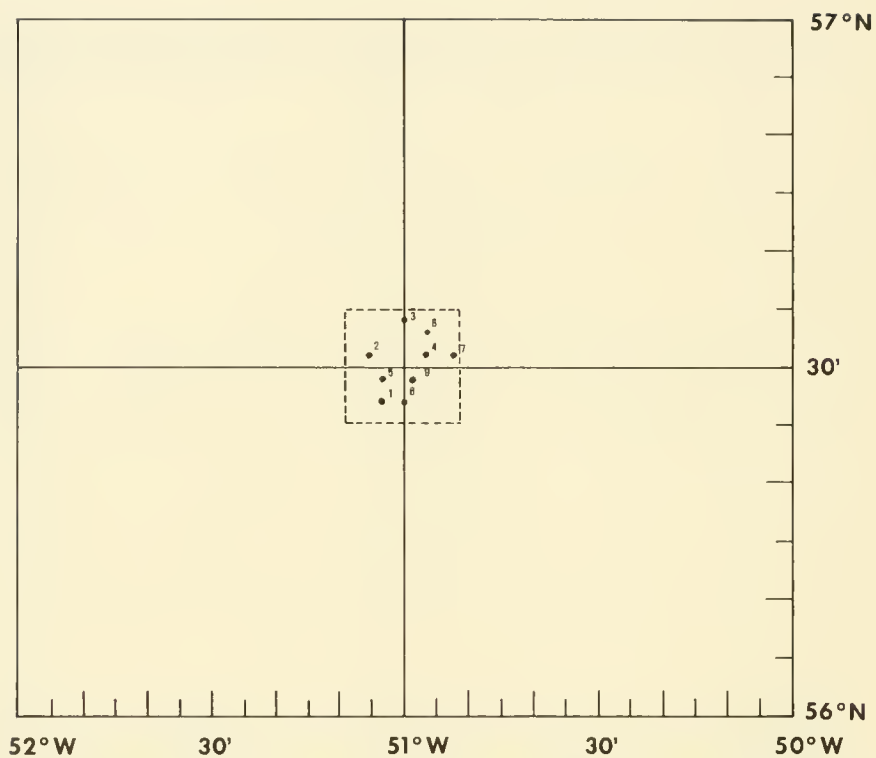


Figure 8. Positions of oceanographic stations taken by USCGC SPENCER during 27 May-6 June 1967 at Ocean Station BRAVO.

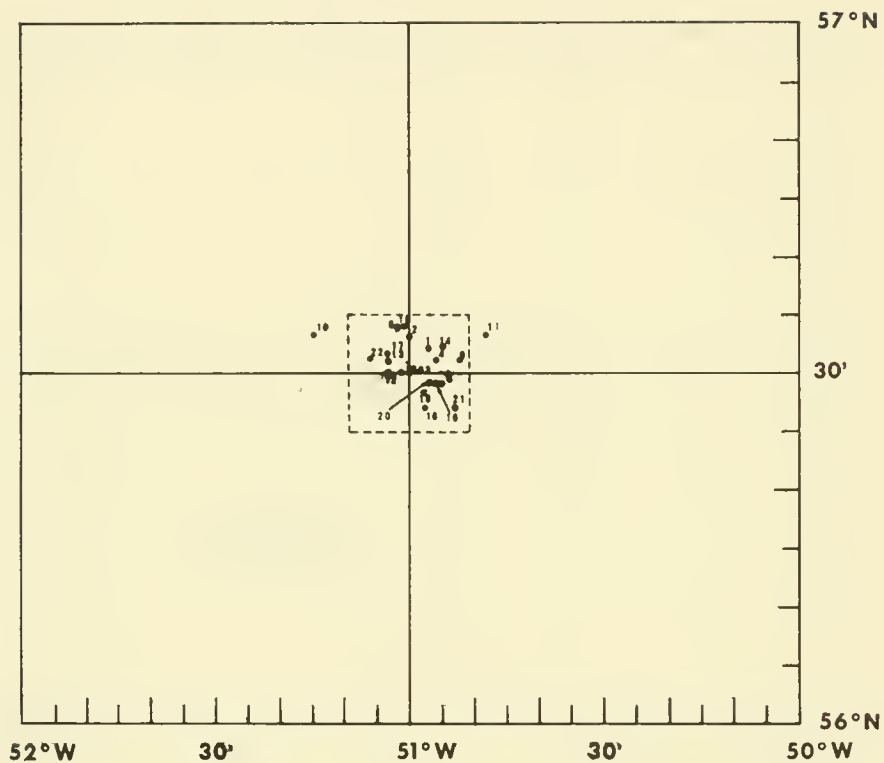


Figure 9. Positions of oceanographic stations taken by USCGC SEBAGO during 29 June–21 July 1967 at Ocean Station BRAVO.

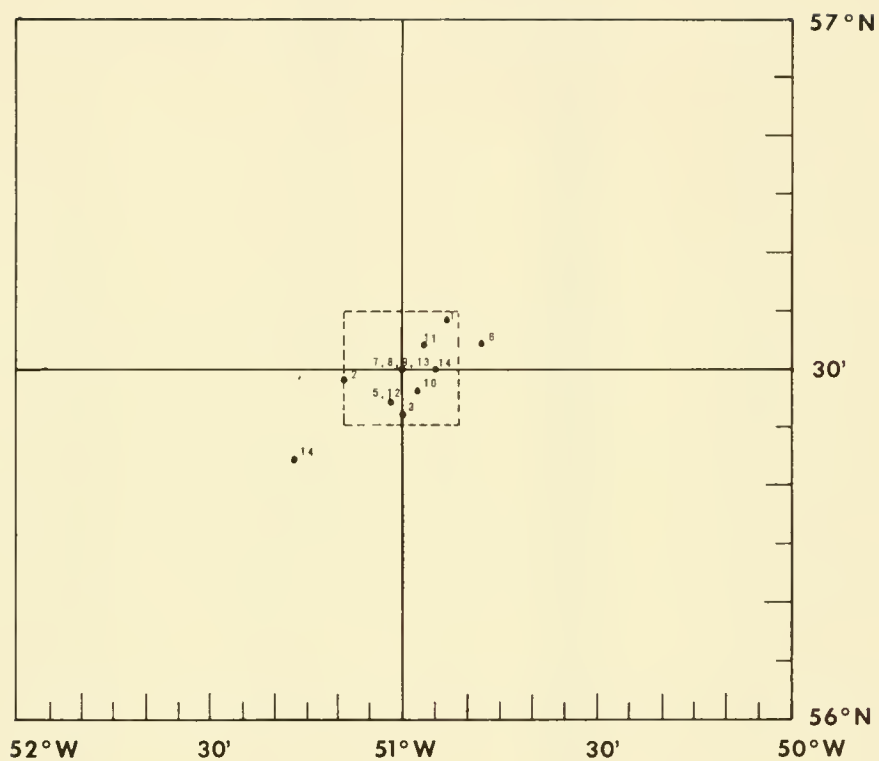


Figure 11. Positions of oceanographic stations taken by USCGC SPENCER during 1-20 October 1967 at Ocean Station BRAVO.

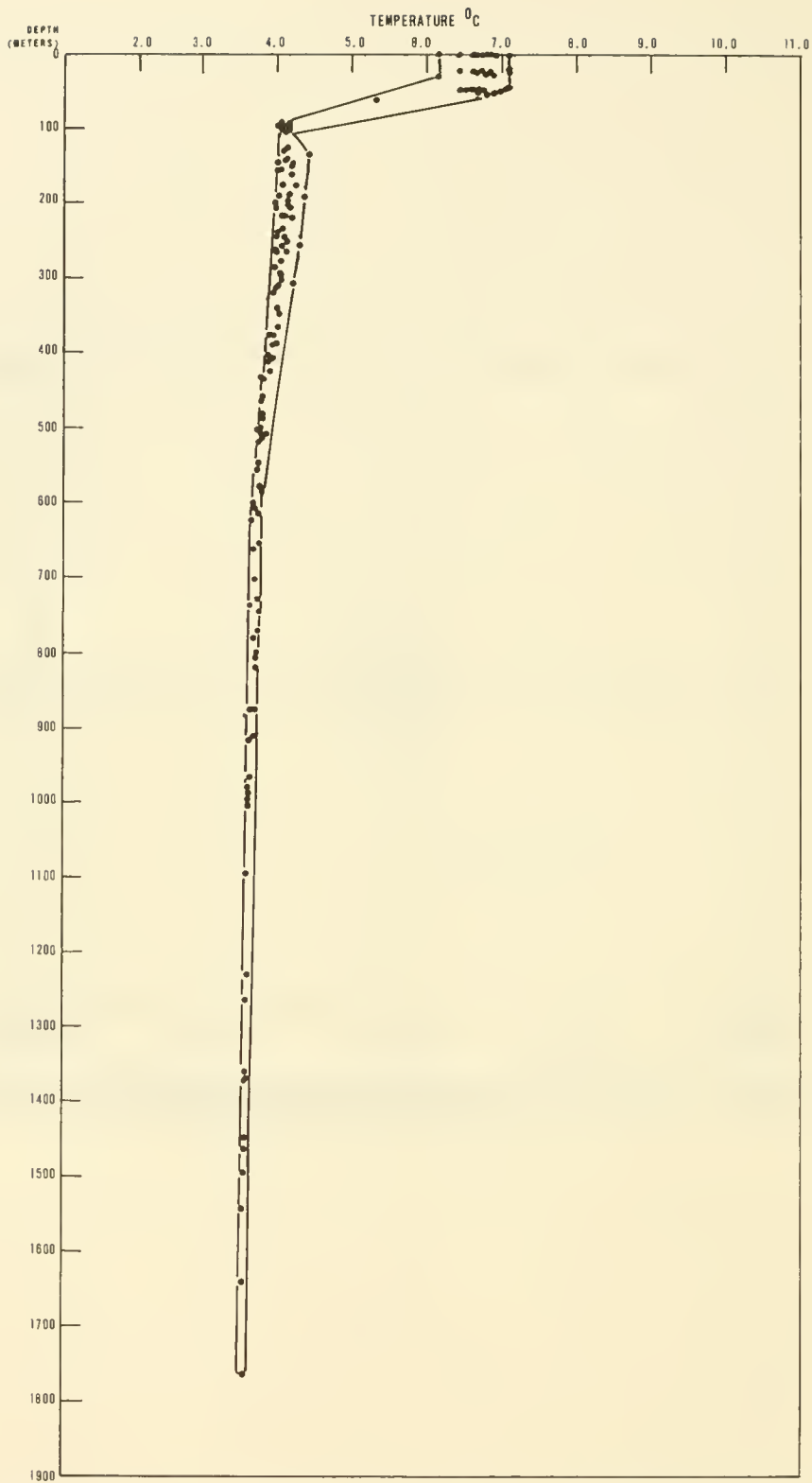


Figure 12. Envelope of temperature versus depth at oceanographic stations taken by USCGC DUANE at Ocean Station BRAVO, 8-28 October 1966.

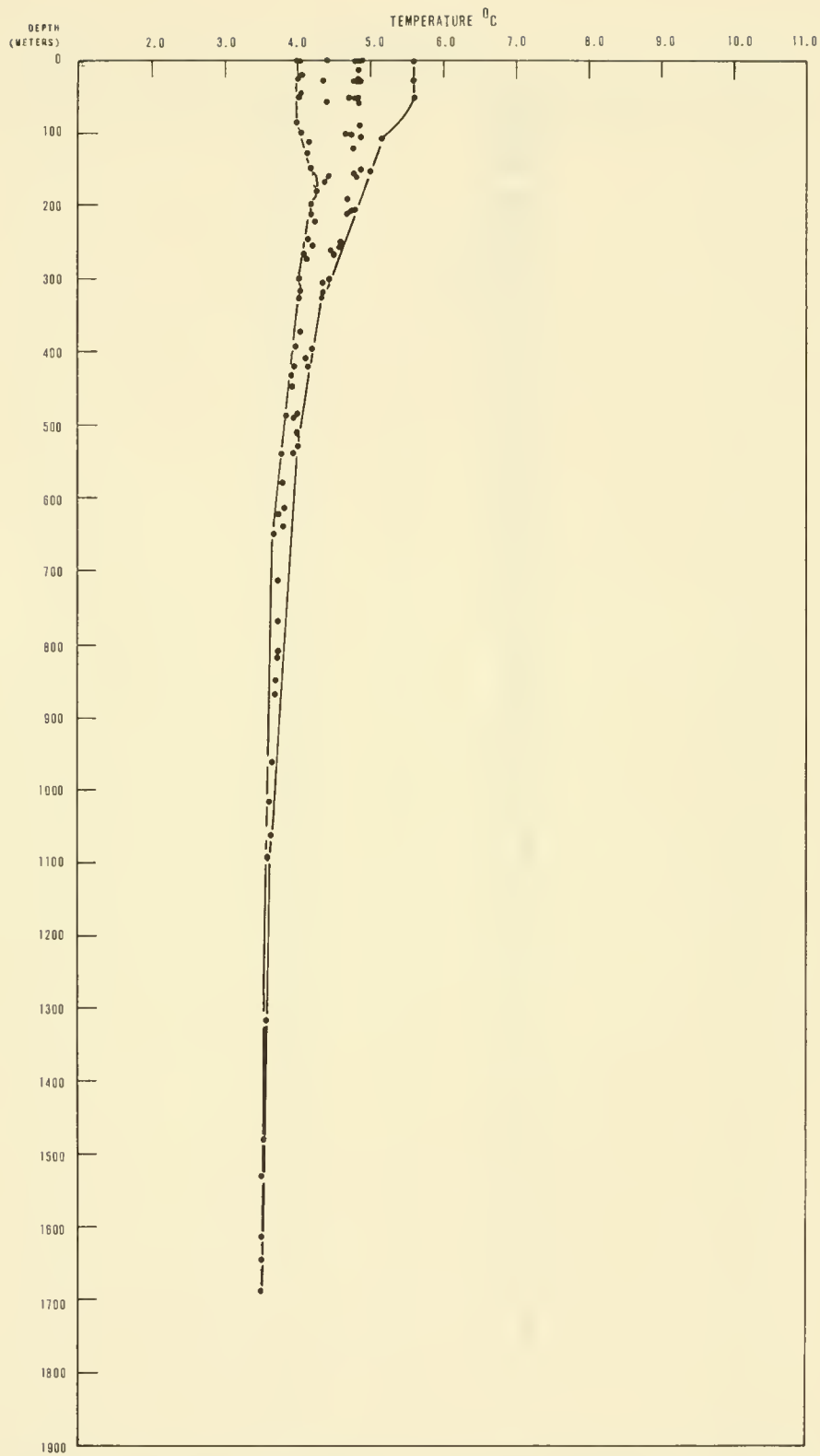


Figure 13. Envelope of temperature versus depth of oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 24 November–12 December 1966.

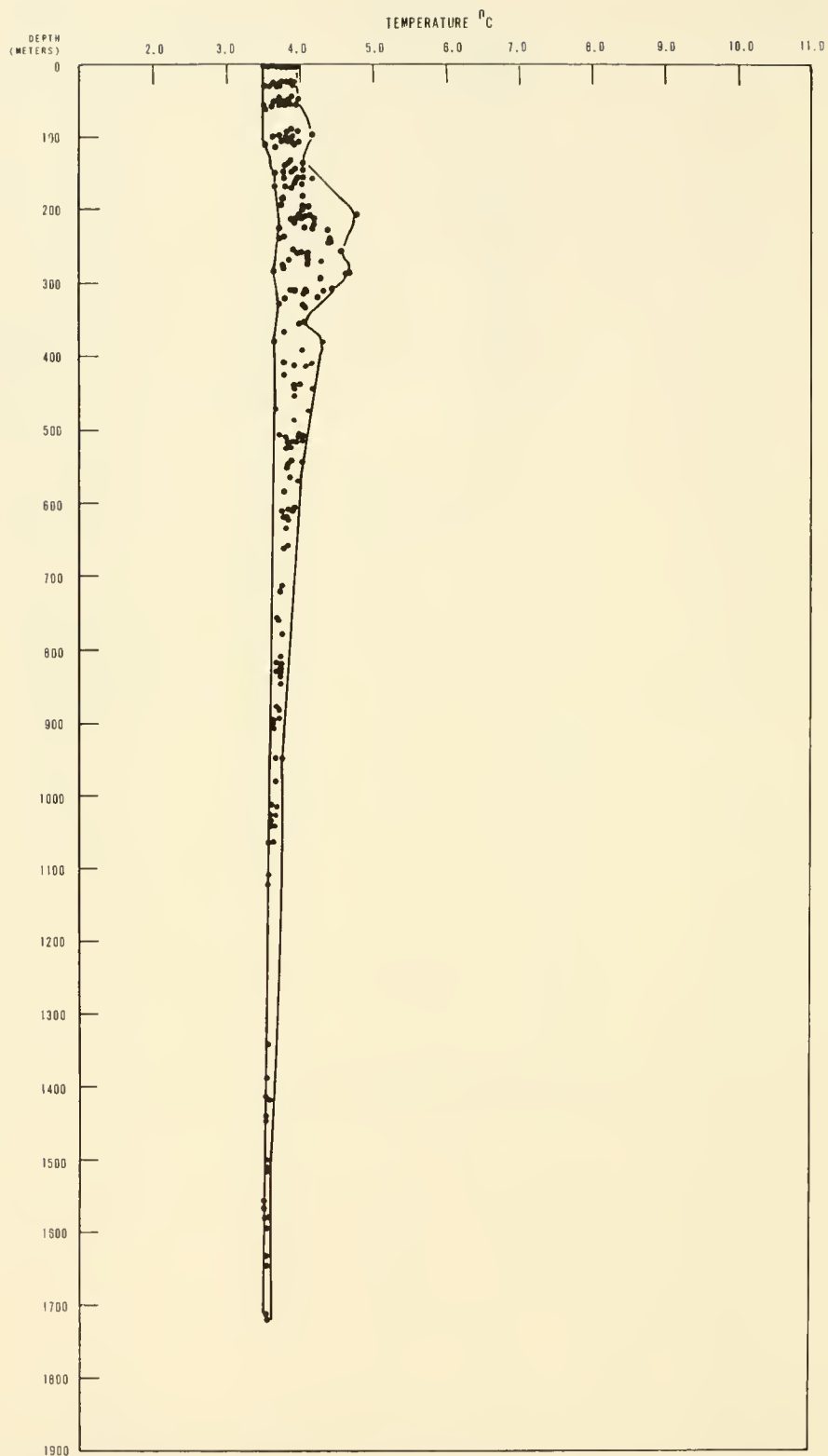


Figure 14. Envelope of temperature versus depth of oceanographic stations taken by USCGC HUMBOLDT at Ocean Station BRAVO, 7-31 January 1967.

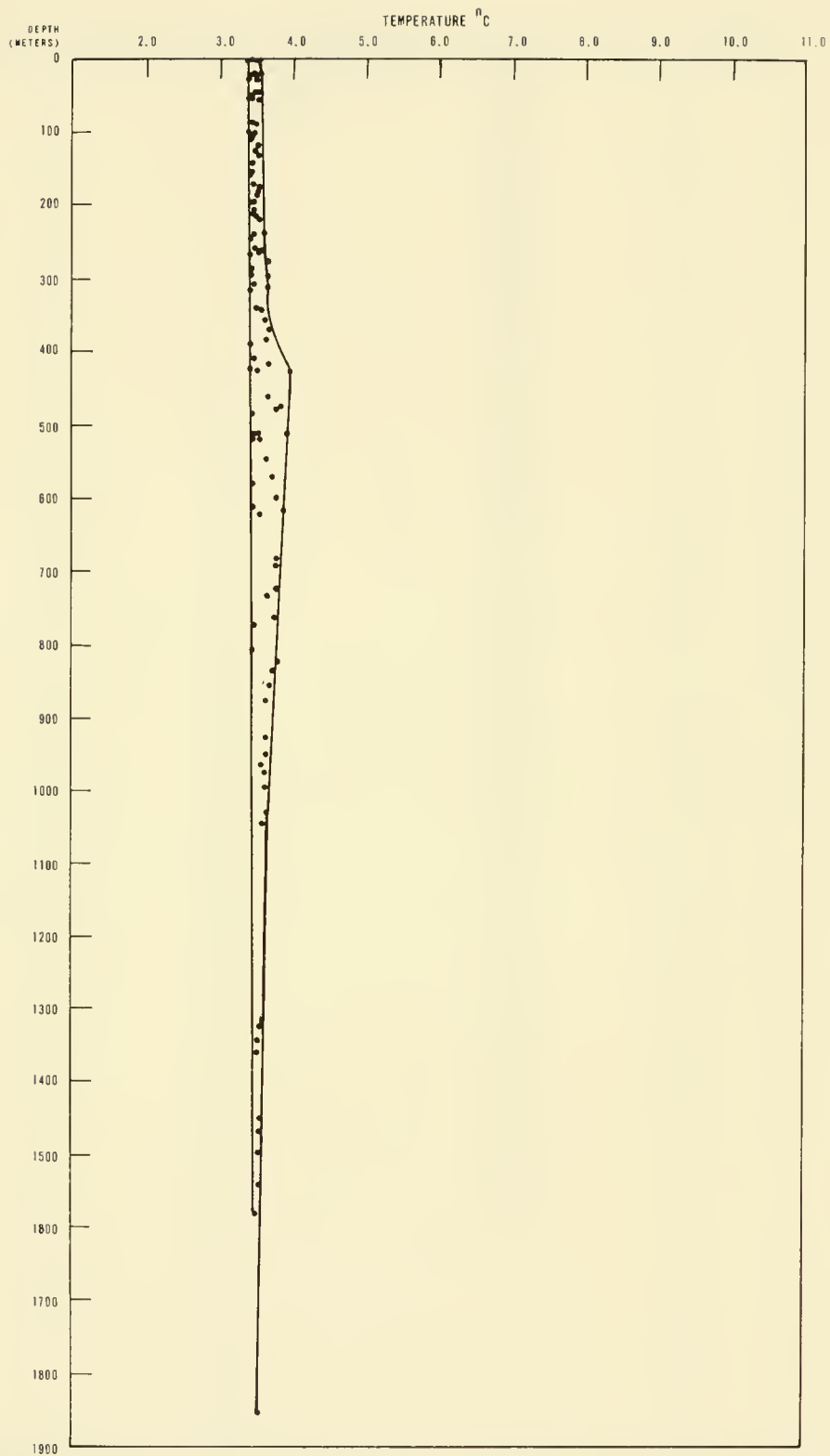


Figure 15. Envelope of temperature versus depth at oceanographic stations taken by USCGC BIBB at Ocean Station BRAVO, 24 February–14 March 1967.

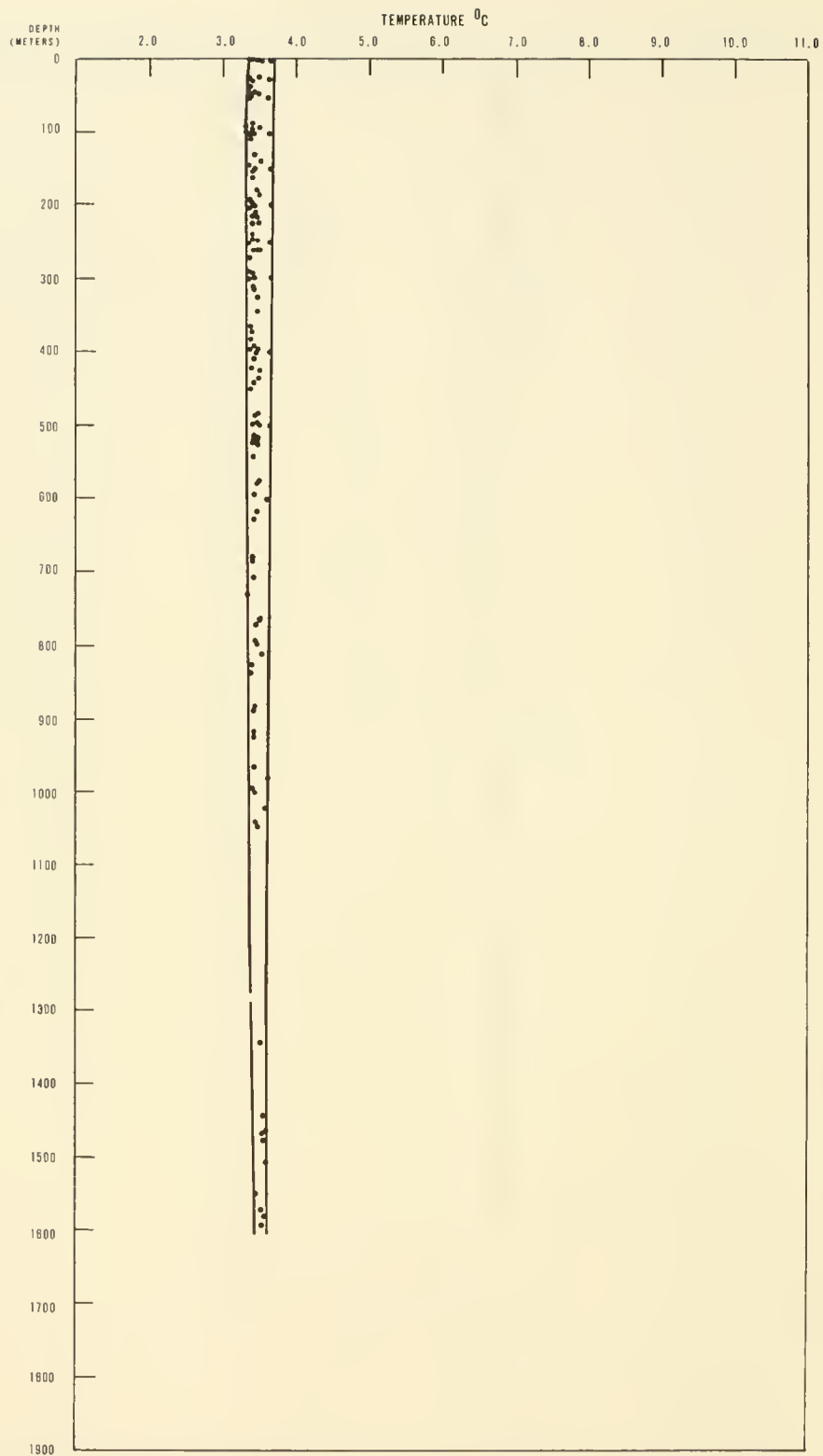


Figure 16. Envelope of temperature versus depth at oceanographic stations taken by USCGC ESCANABA at Ocean Station BRAVO, 6-24 April 1967.

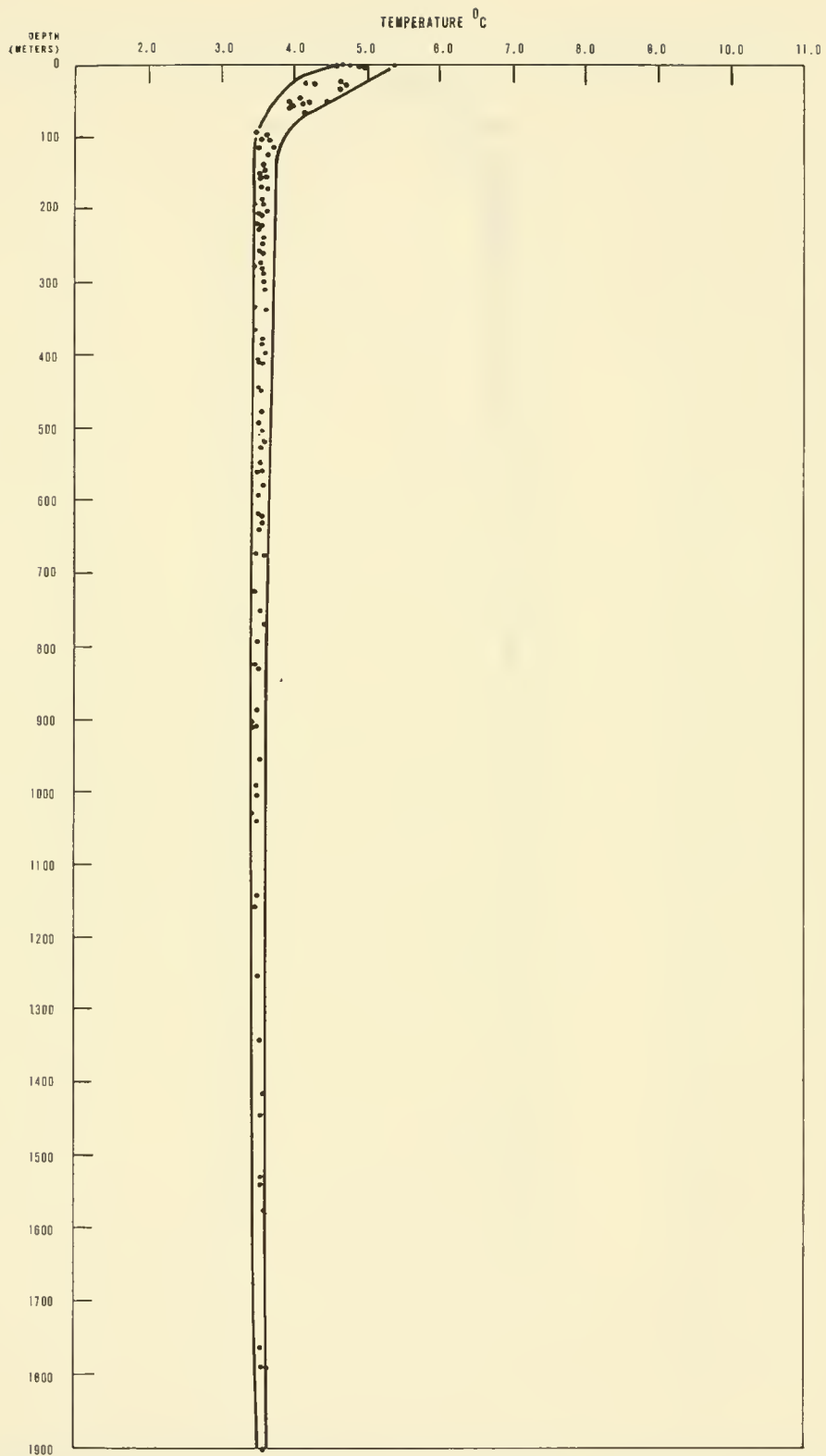


Figure 17. Envelope of temperature versus depth at oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 27-6 June 1967.

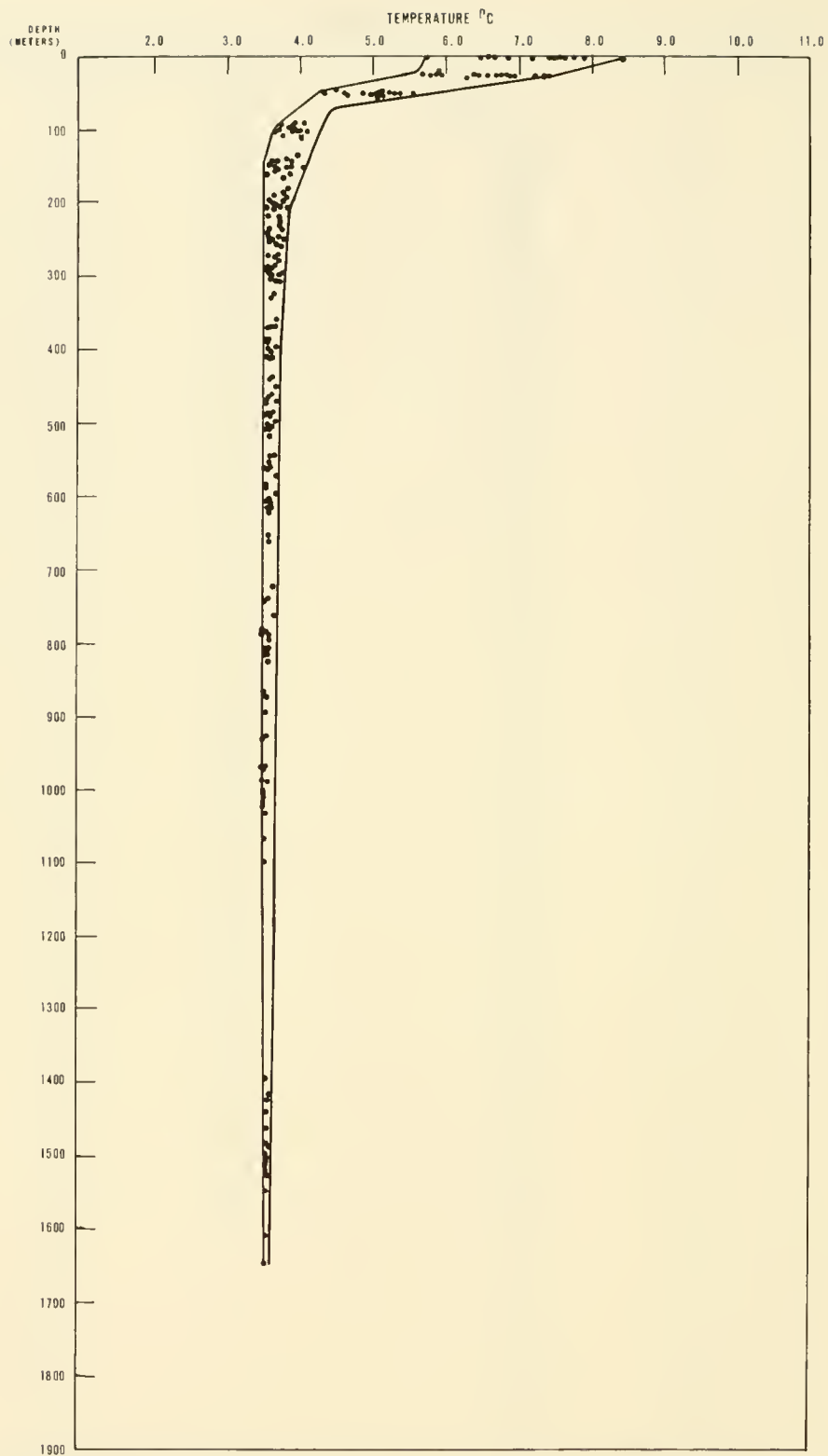


Figure 18. Envelope of temperature versus depth at oceanographic stations taken by USCGC SEBAGO at Ocean Station BRAVO, 29 June–21 July 1967.

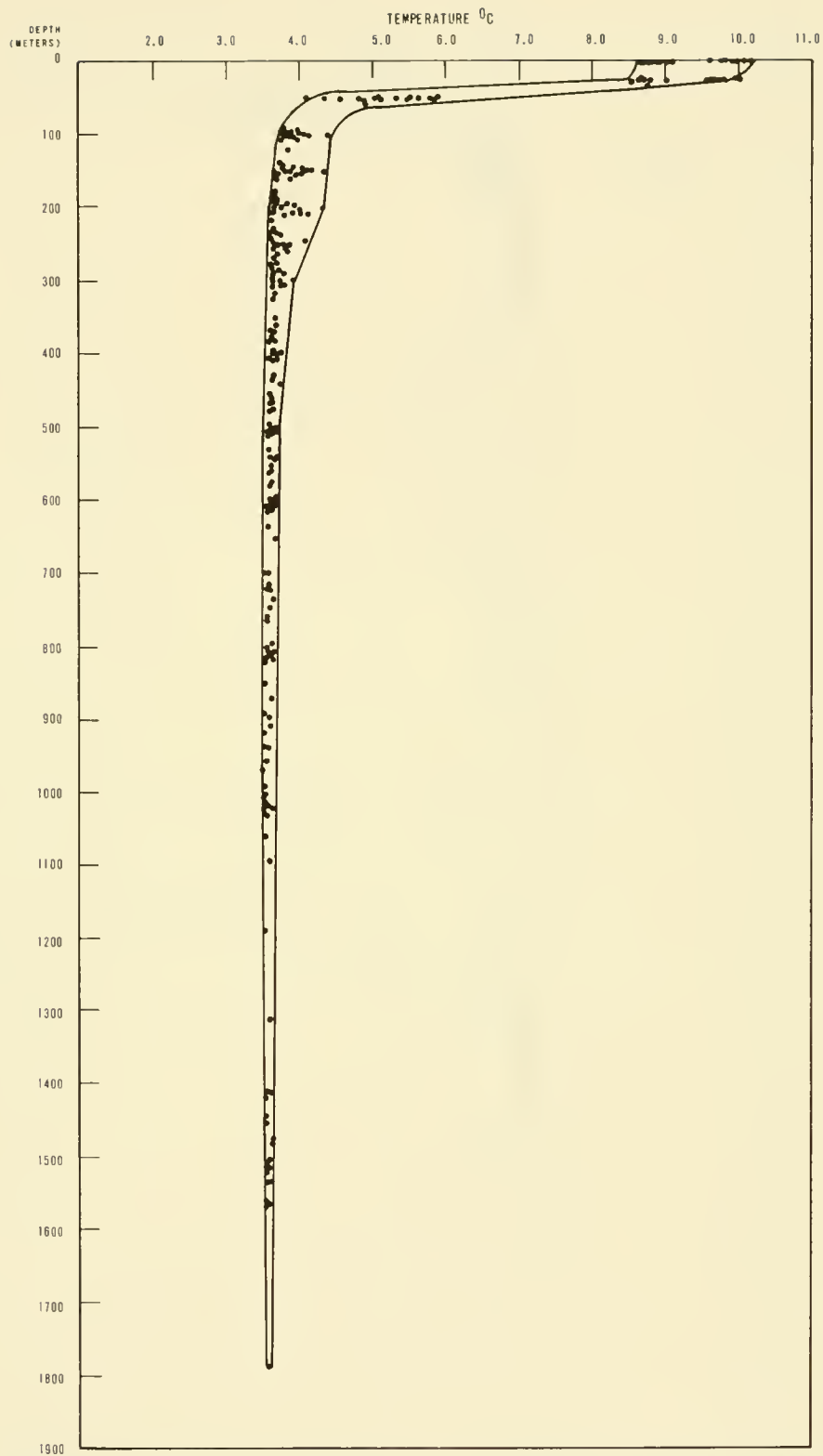


Figure 19. Envelope of temperature versus depth at oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 14 August-5 September 1967.

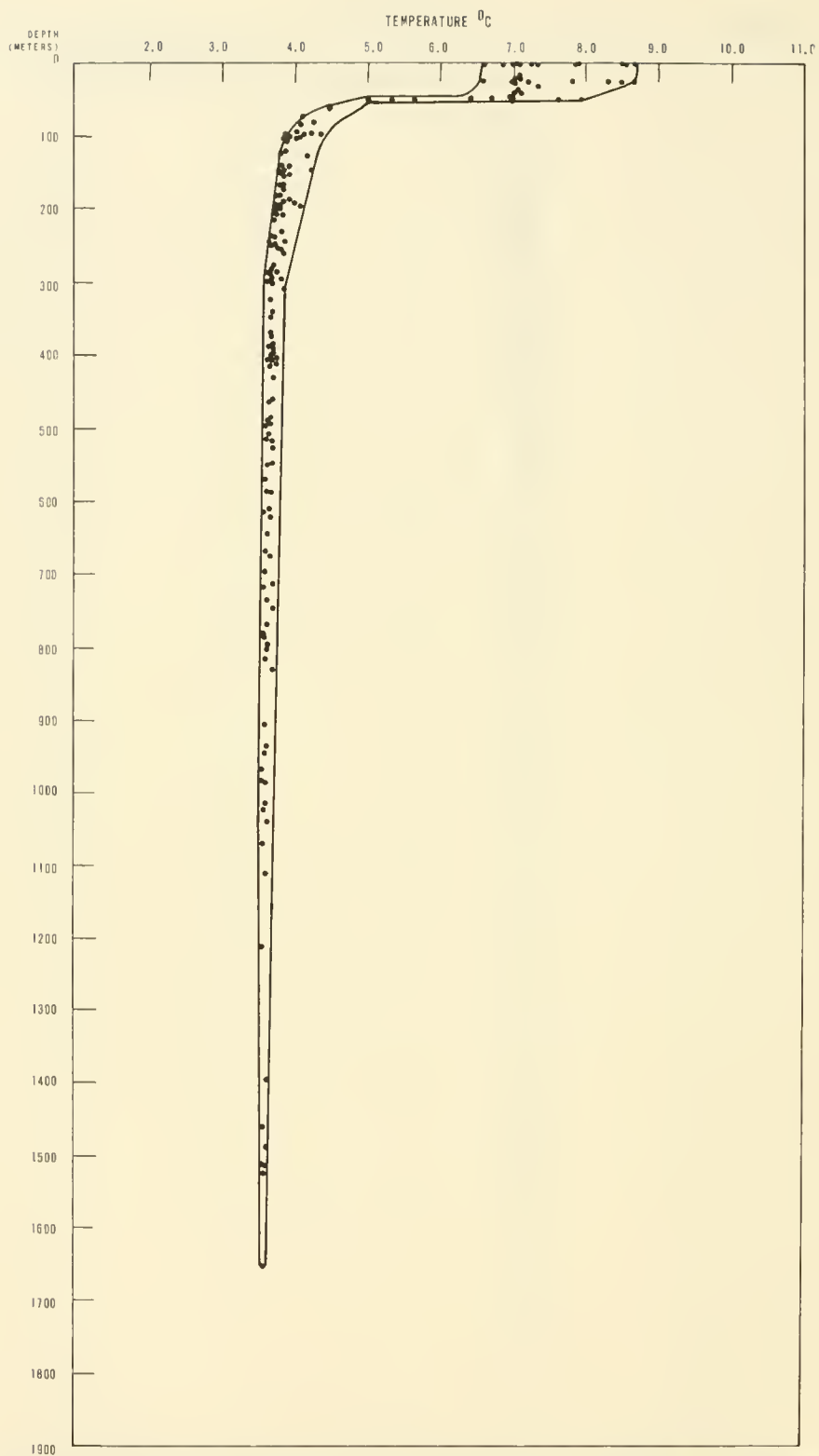


Figure 20. Envelope of temperature versus depth at oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 1-20 October 1967.

TEMPERATURE VERSUS TIME AT SELECTED LEVELS AT OCEAN STATION BRAVO

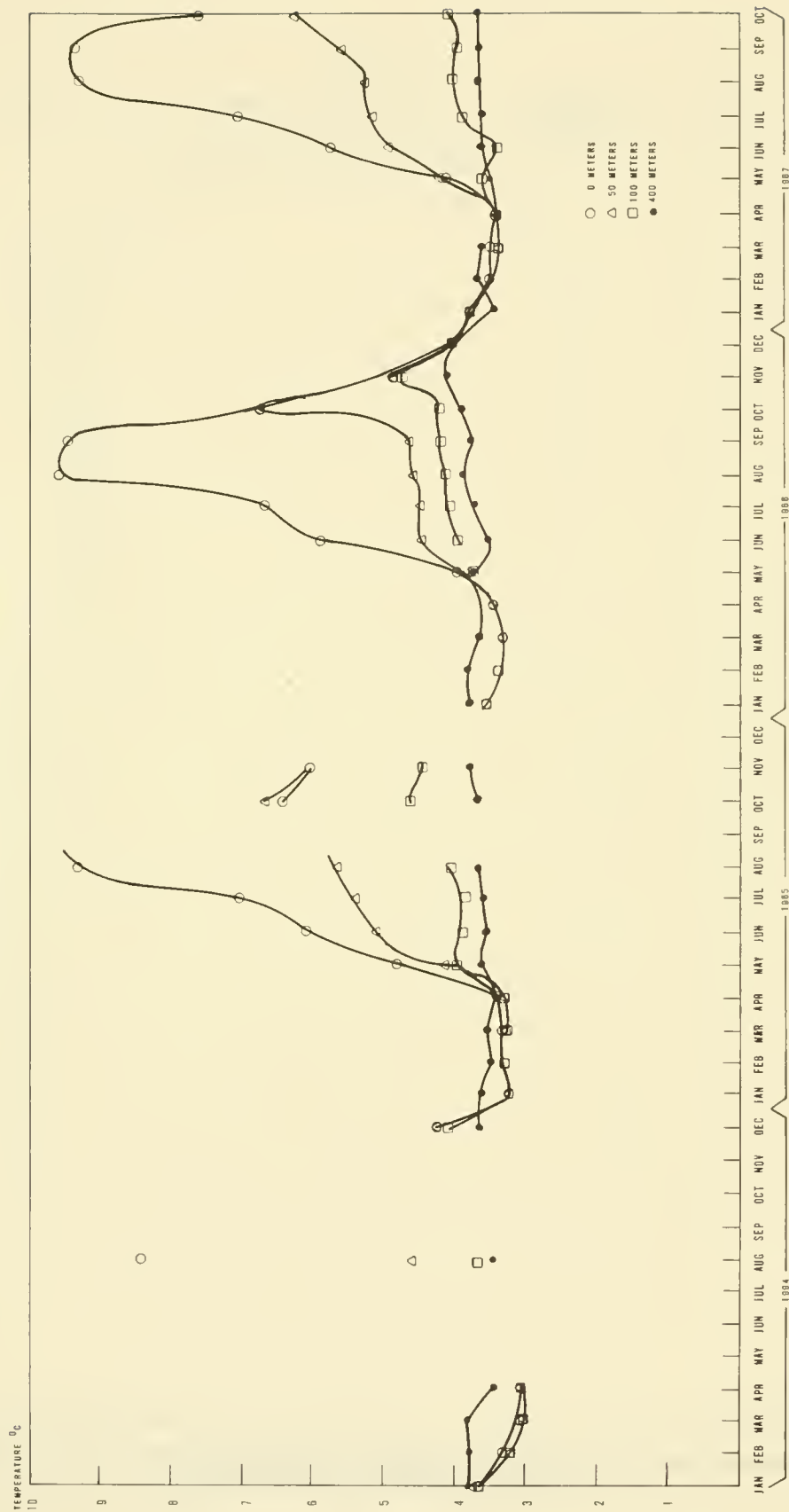


Figure 21. Monthly averages of water temperature versus time at selected depths at Ocean Station BRAVO, January 1964–October 1967.

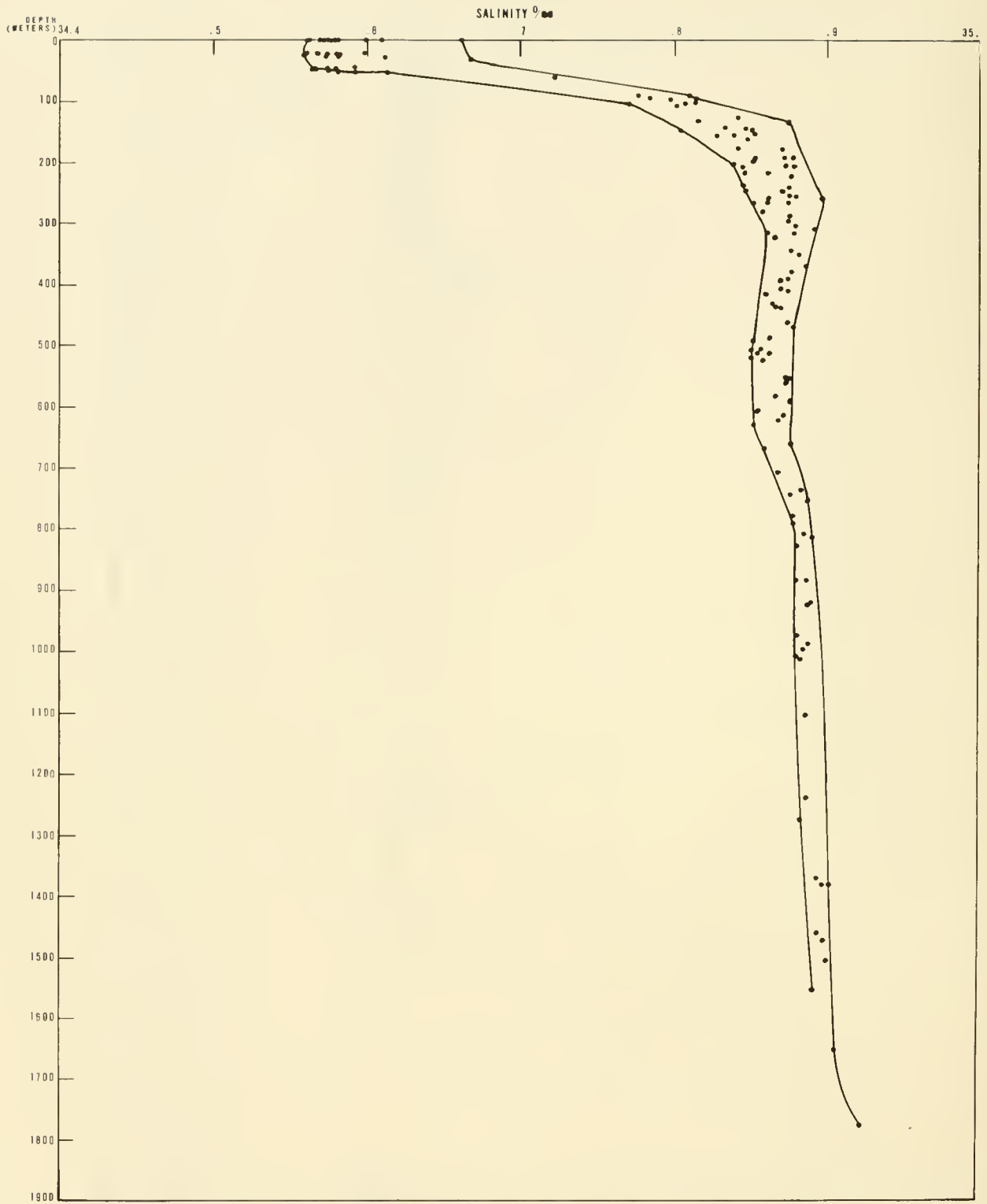


Figure 22. Envelope of salinity versus depth at oceanographic stations taken by USCGC DUANE at Ocean Station BRAVO, 8-28 October 1966.

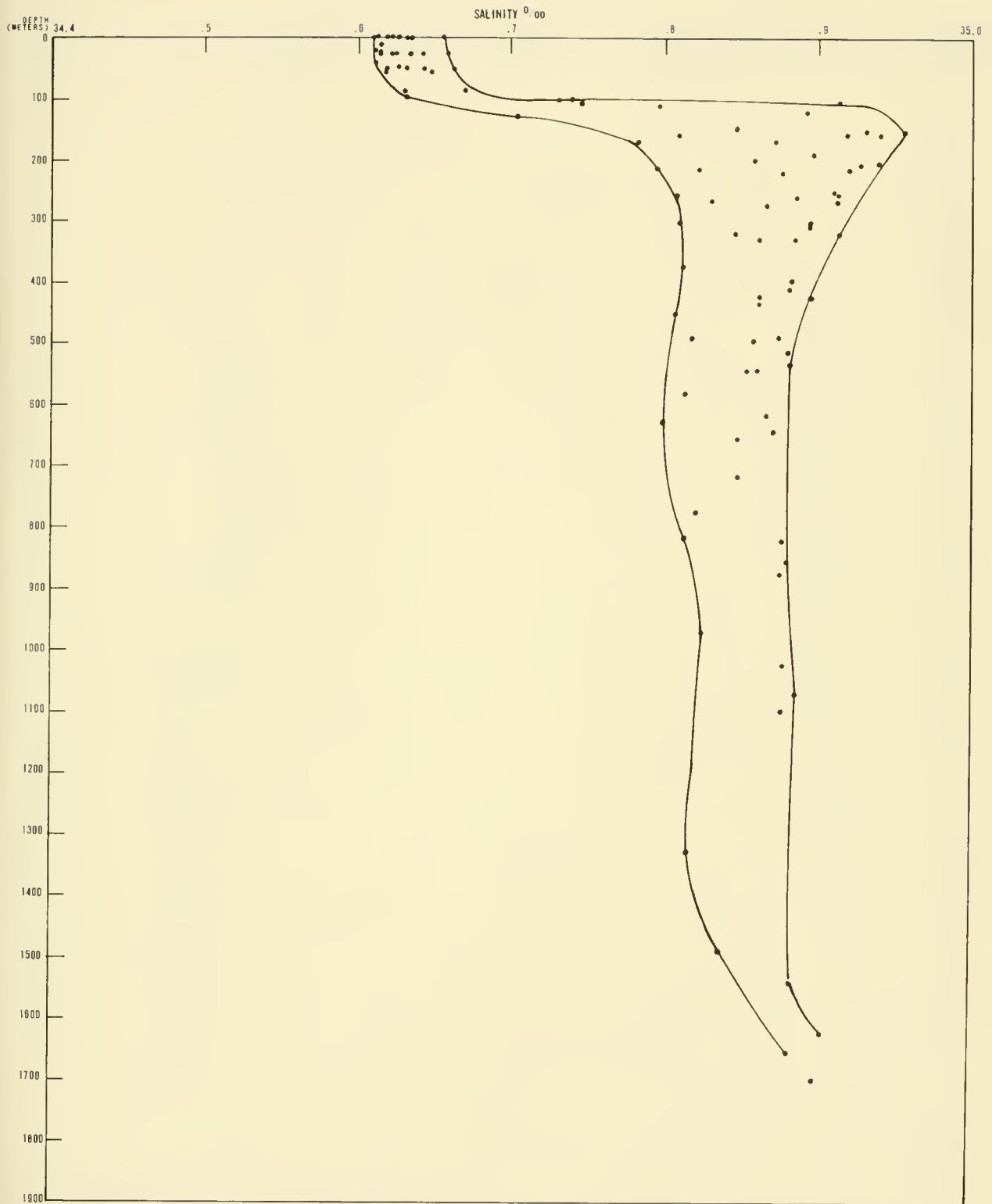


Figure 23. Envelope of salinity versus depth at oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 24 November-12 December 1966.

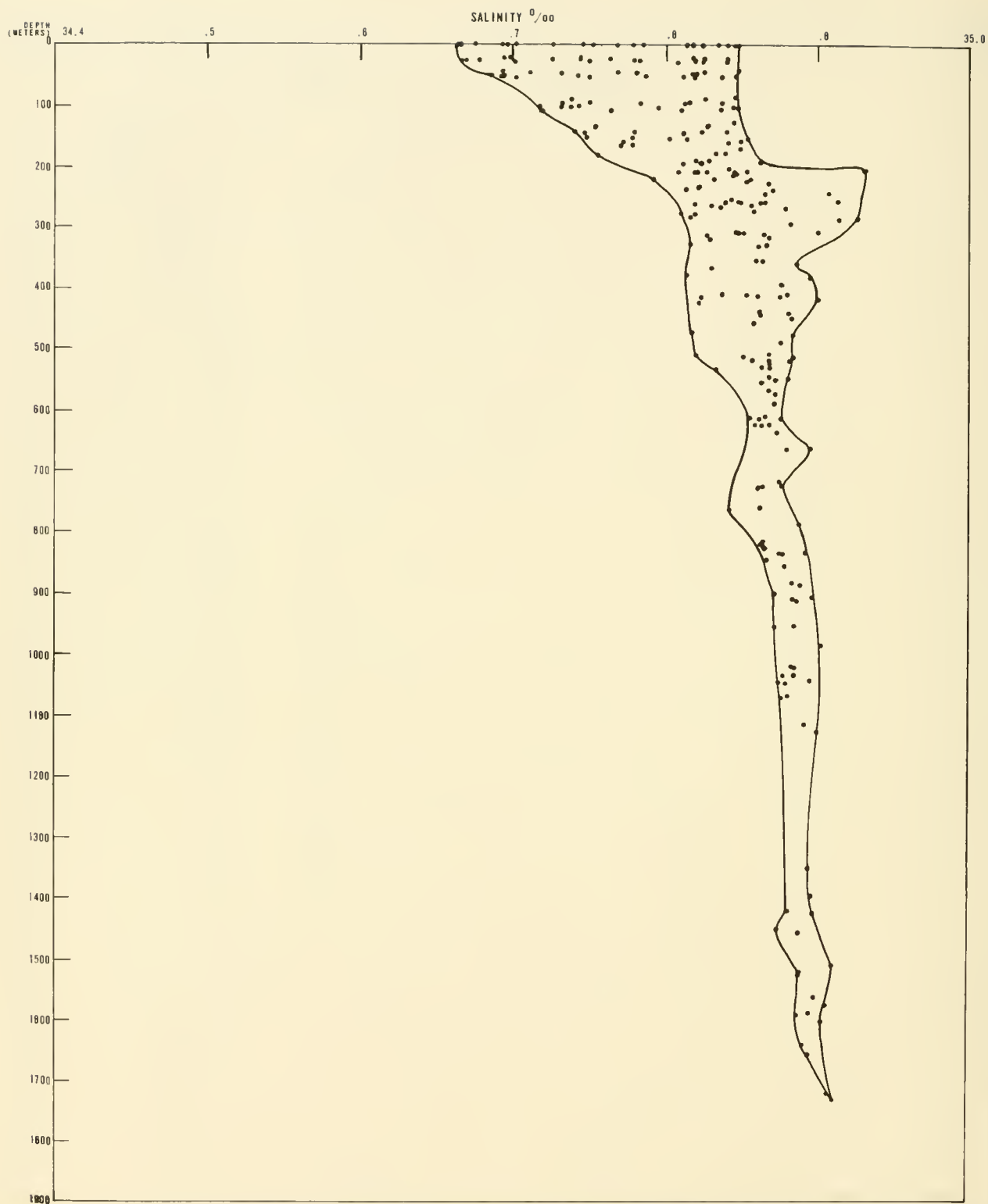


Figure 24. Envelope of salinity versus depth at oceanographic stations taken by USCGC HUMBOLDT at Ocean Station BRAVO, 7-31 January 1967.

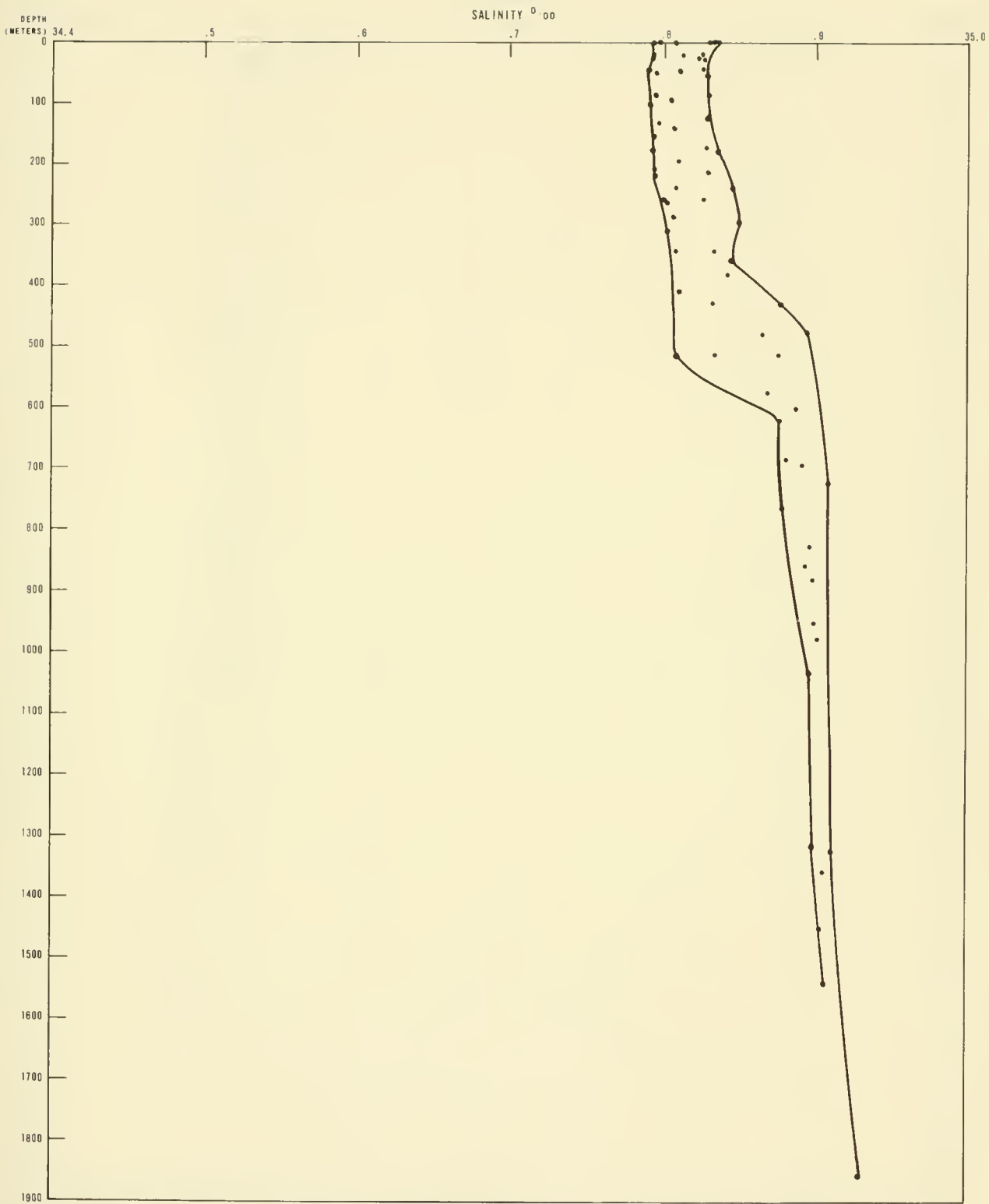


Figure 25. Envelope of salinity versus depth at oceanographic stations taken by USCGC BIBB at Ocean Station BRAVO, 24 February-14 March 1967.

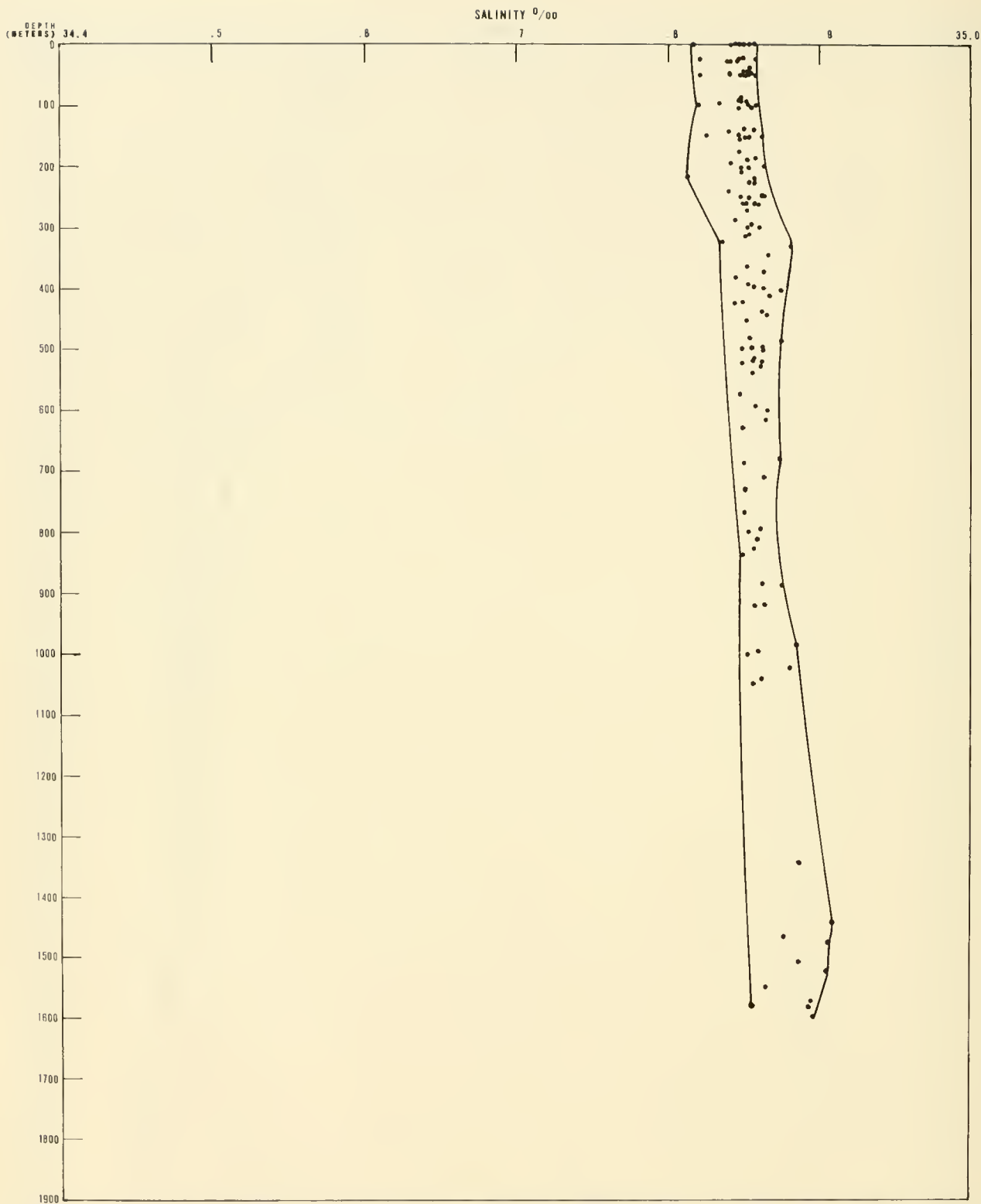


Figure 26. Envelope of salinity versus depth at oceanographic station taken by USCGC ESCANABA at Ocean Station BRAVO, 6-24 April 1967.

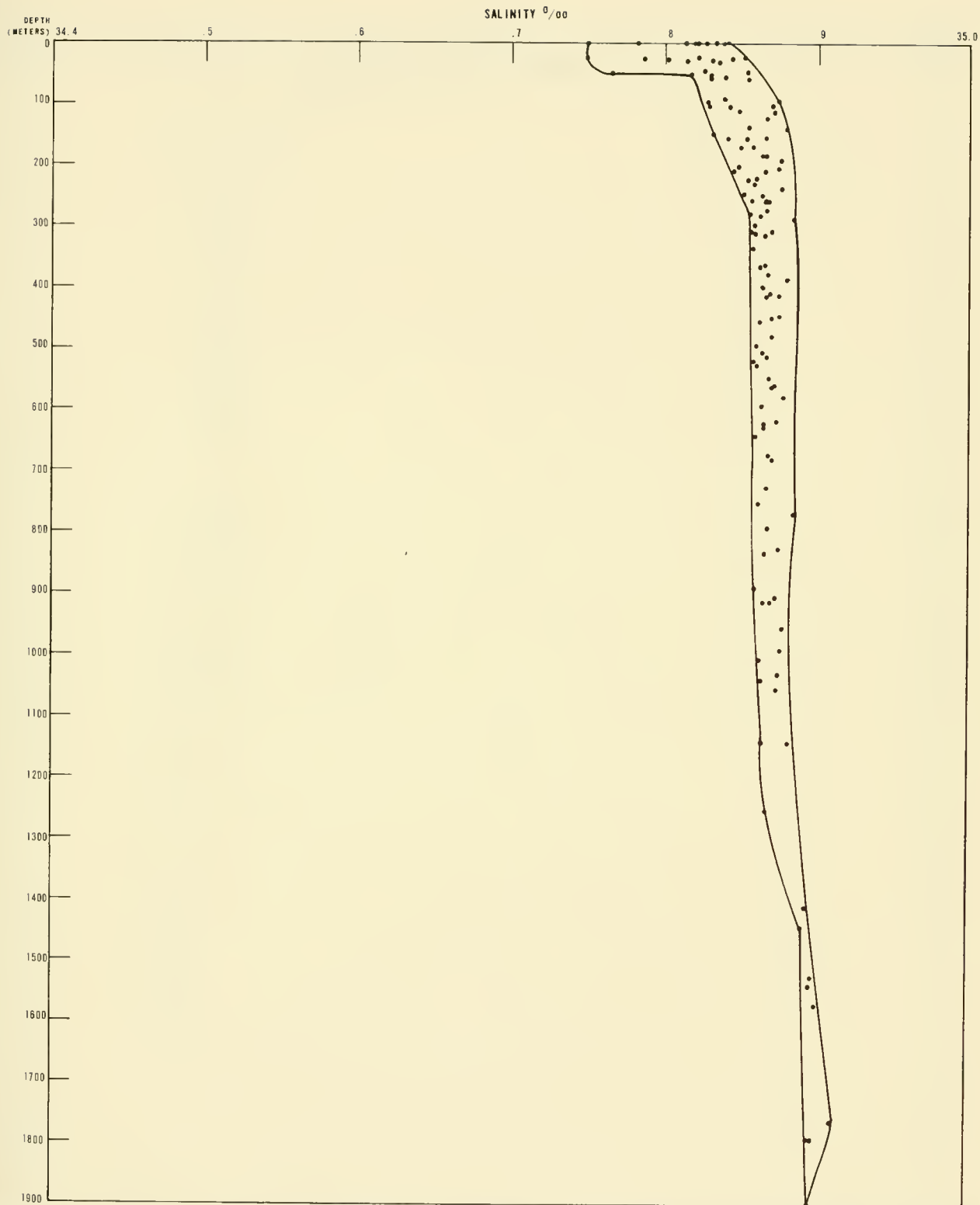


Figure 27. Envelope of salinity versus depth at oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 27 May-6 June 1967.

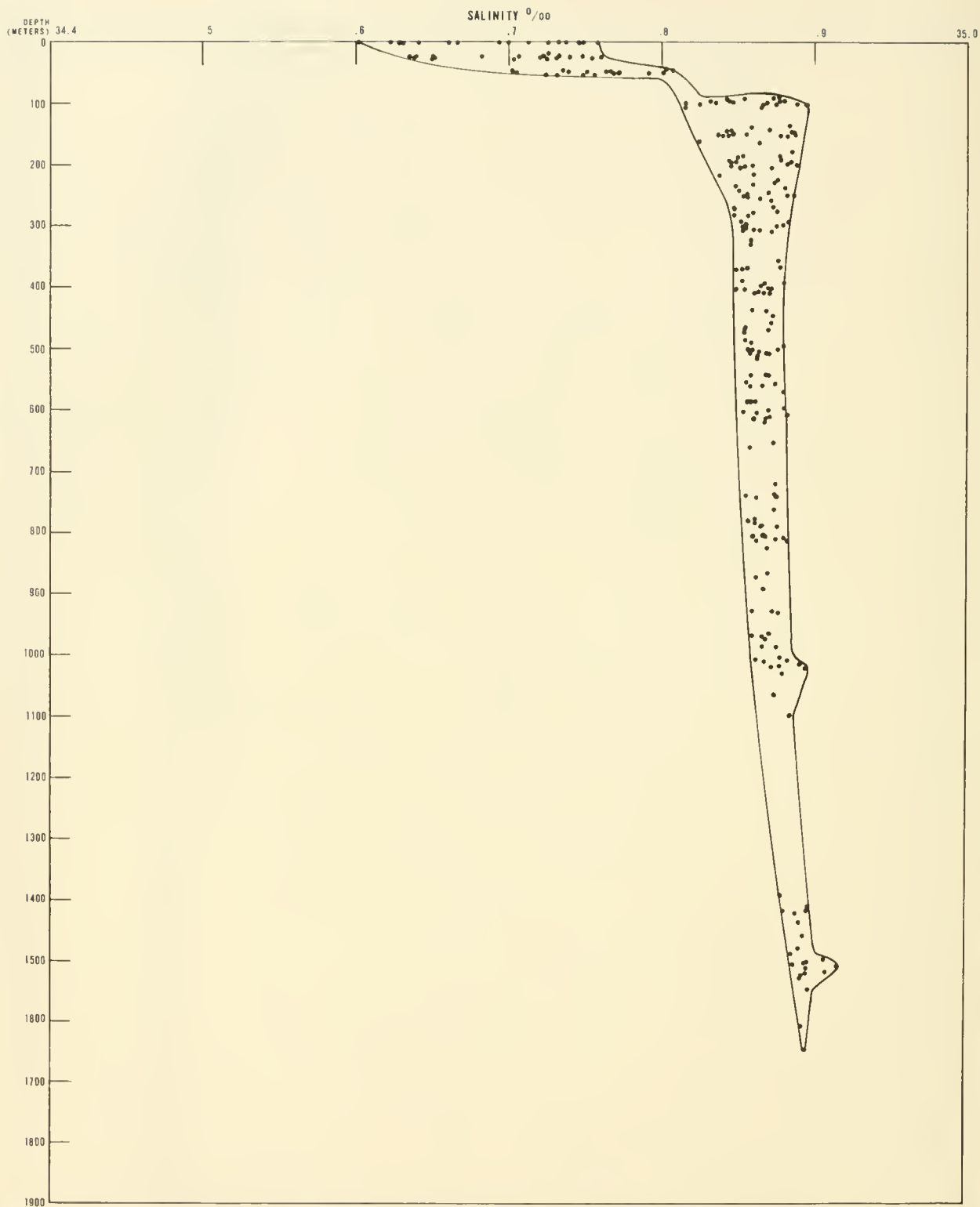


Figure 28. Envelope of salinity versus depth at oceanographic stations taken by USCGC SEBAGO at Ocean Station BRAVO, 29 June-21 July 1967.

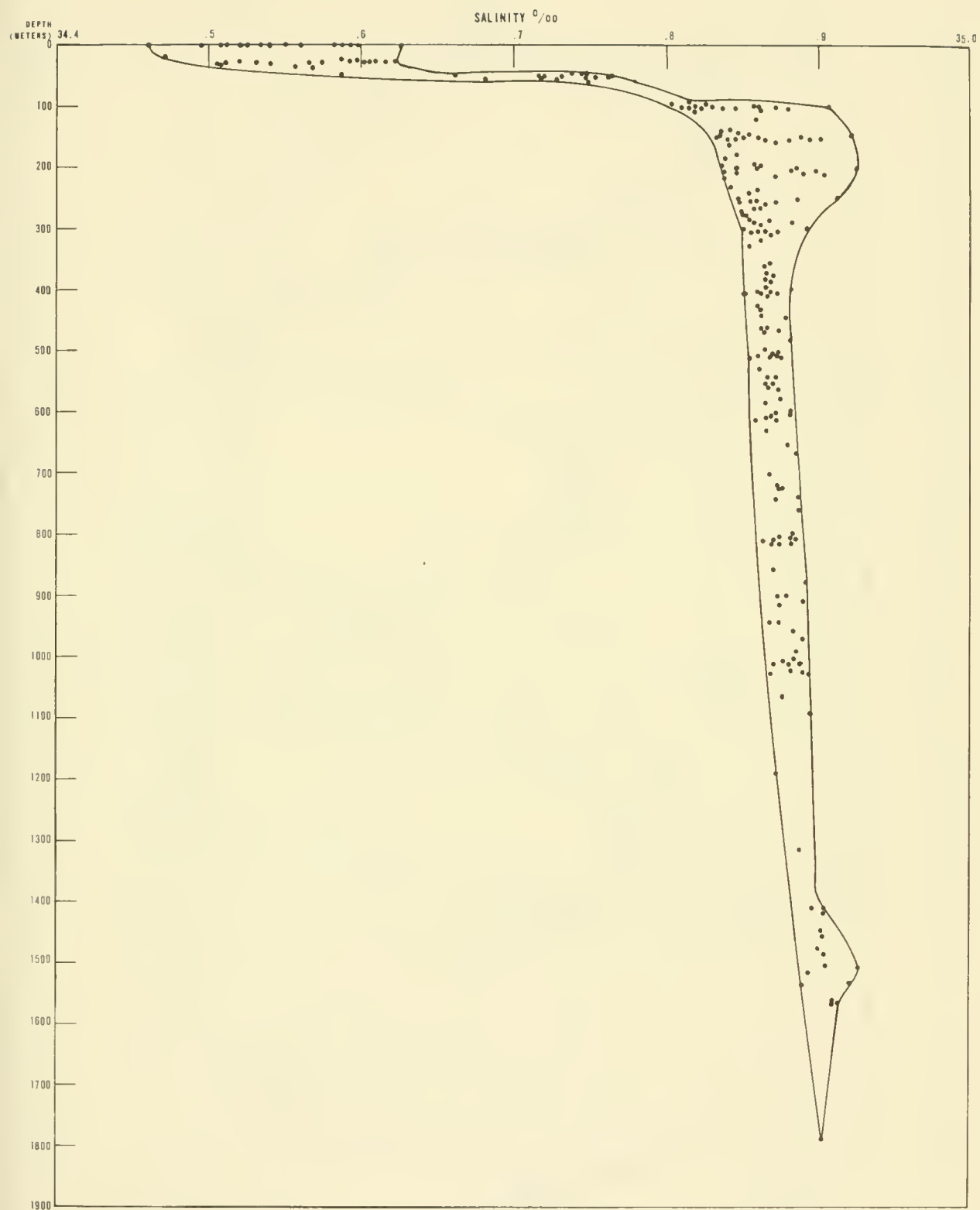


Figure 29. Envelope of salinity versus depth of oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 14 August-5 September 1967.

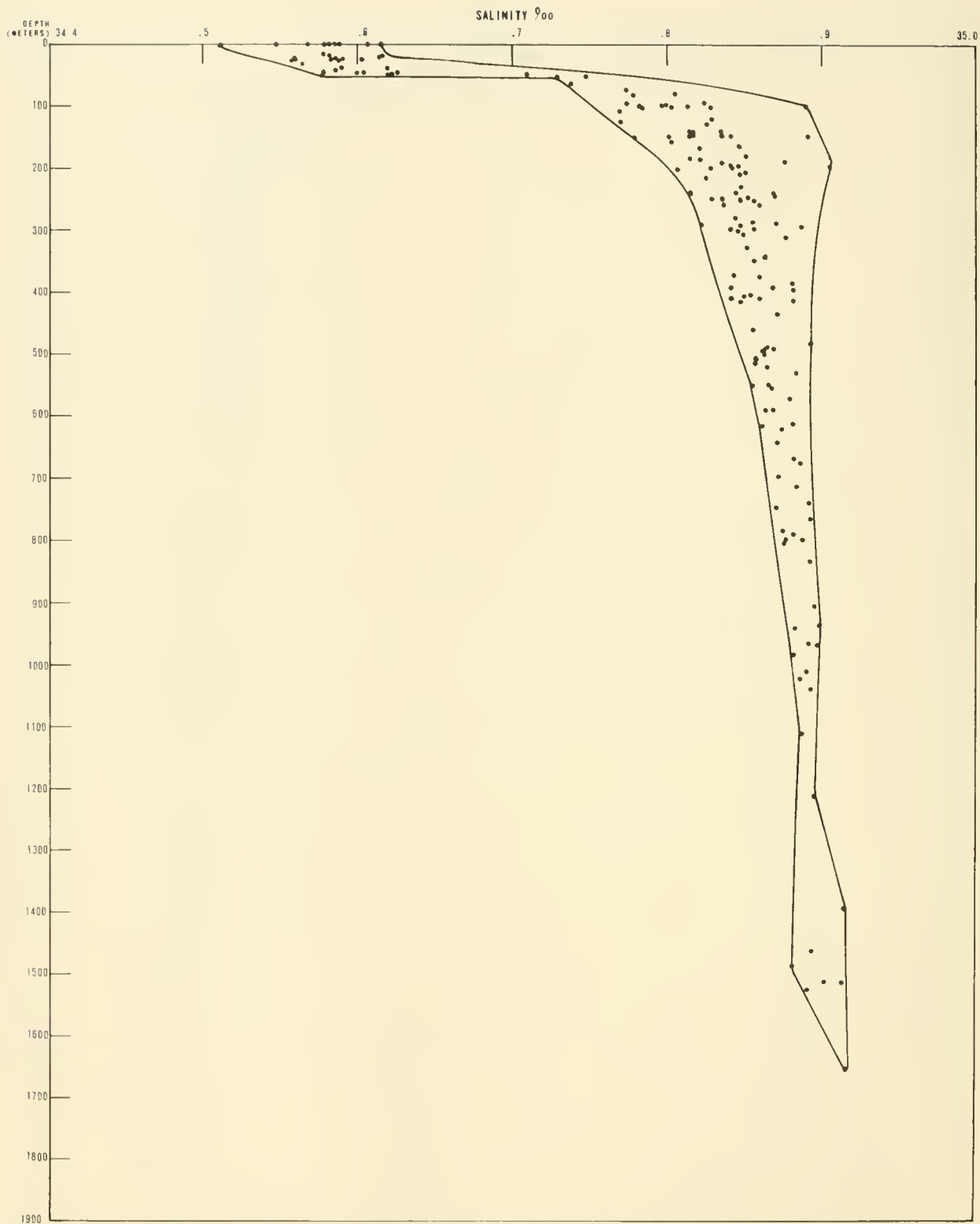


Figure 30. Envelope of salinity versus depth of oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 1-20 October 1967.

SALINITY VERSUS TIME AT SELECTED LEVELS AT OCEAN STATION BRAVO

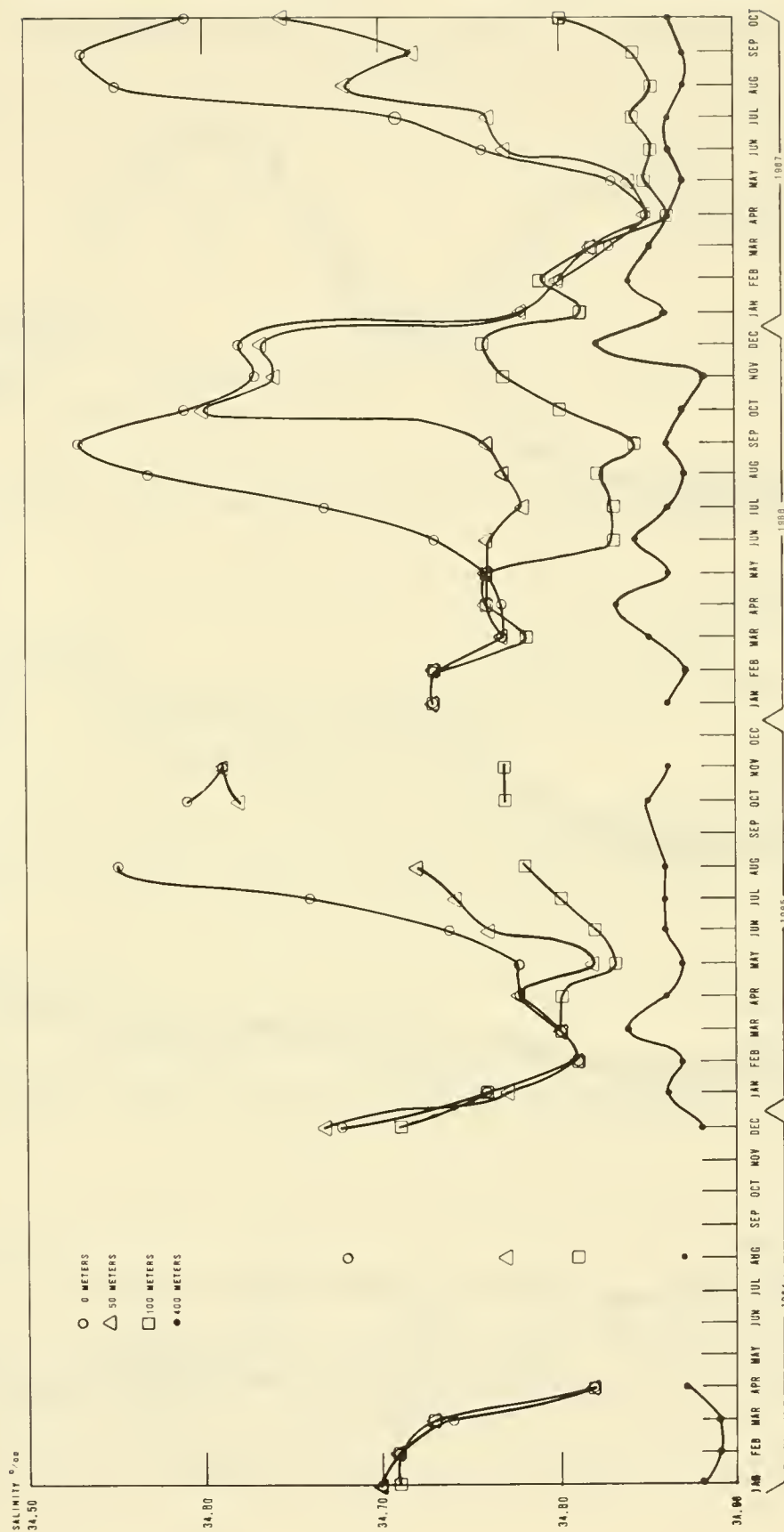


Figure 31. Monthly averages of salinity versus time at selected depths at Ocean Station BRAVO, January 1964–October 1967.

TEMPERATURE VERSUS TIME BY DEPTH AT SELECTED LEVELS AT OCEAN STATION BRAVO

1964 - 1967

TEMPERATURE °C

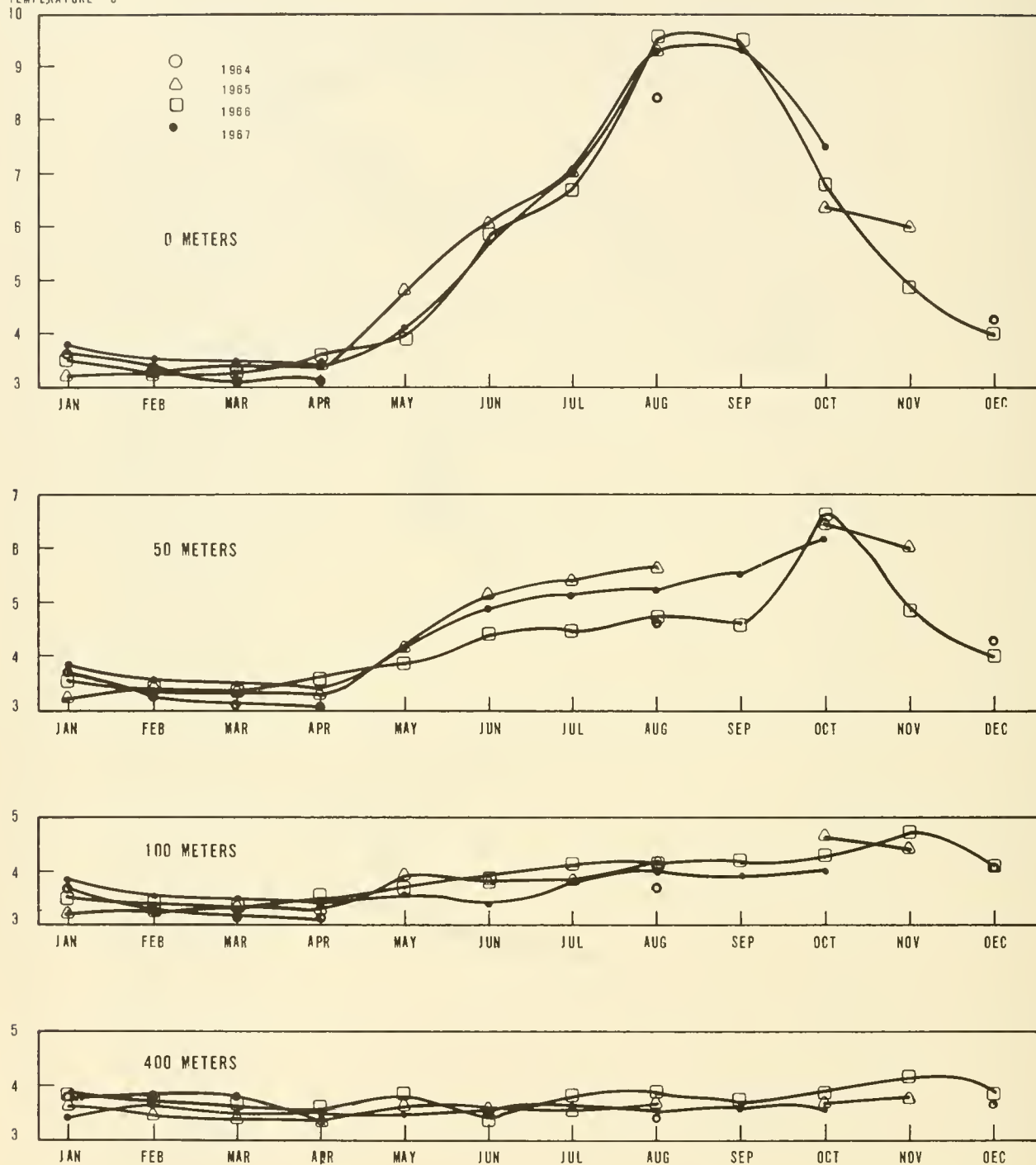


Figure 32. Monthly averages of water temperature versus time by depth at Ocean Station BRAVO, January 1964–October 1967.

SALINITY VERSUS TIME BY DEPTH AT SELECTED LEVELS AT OCEAN STATION BRAVO

1964 - 1967

SALINITY ‰

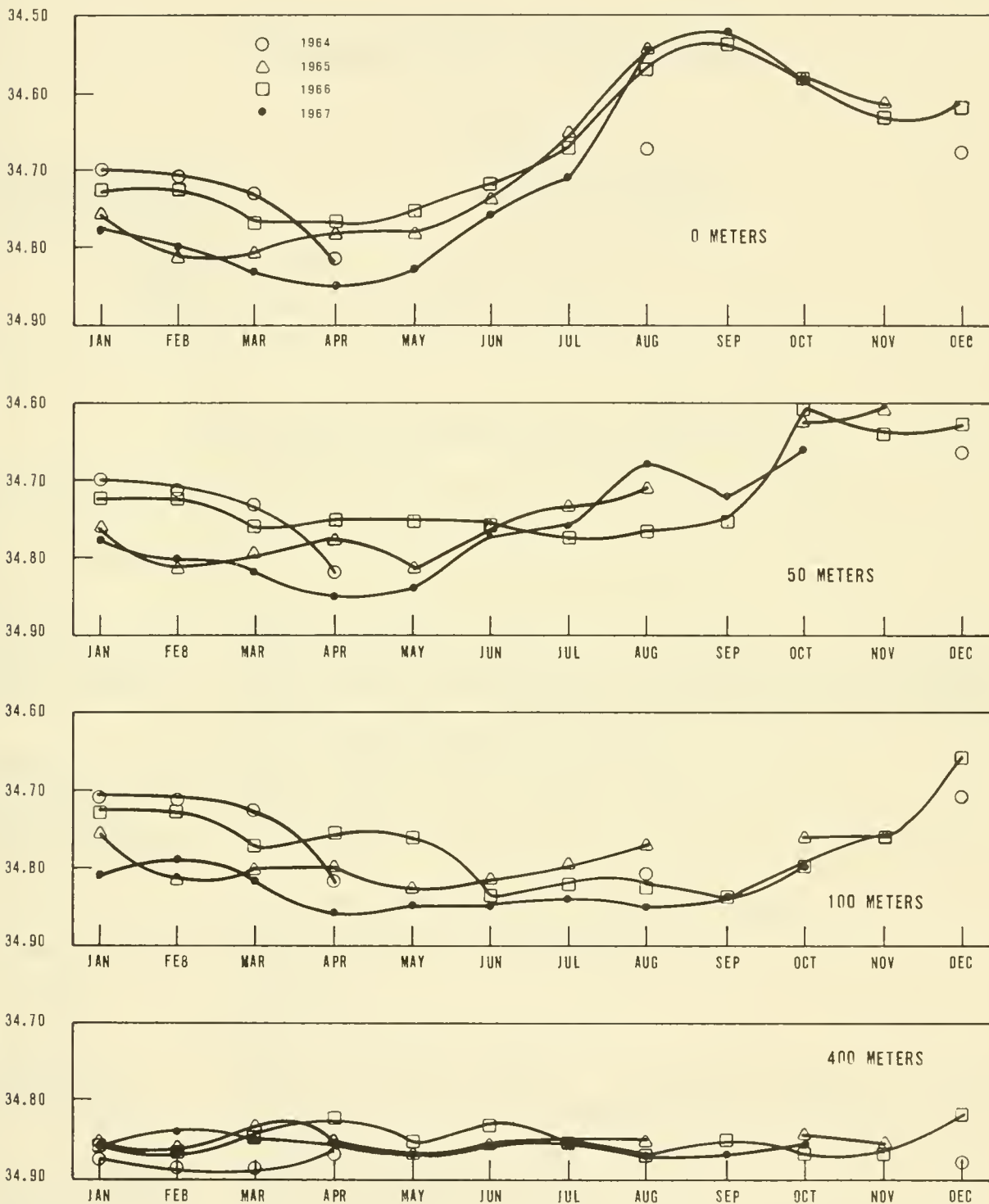


Figure 33. Monthly averages of salinity versus time by depth at Ocean Station BRAVO, January 1964–October 1967.

Oceanographic Station Data

TABLES

Notes on oceanographic data:

DU=USCGC DUANE

ML=USCGC McCULLOCH

HU=USCGC HUMBOLDT

BX=USCGC BIBB

EN=USCGC ESCANABA

SC=USCGC SPENCER

SB=USCGC SEBAGO

T=Thermometric depths

Q=Indicates value was noted as doubtful by originator

P=Indicates value has been designated as potentially Implausible by NODC

Weather Symbols=Reported in WMO scales (USWB 1960)

Explanation of Oceanographic Station Data

A. Description of Entries, Unit and Codes on NODC Station Listing

1. Surface Observations

<i>Entry</i>	<i>Description of Field</i>
NODC REF. ID. NO.	NODC reference identity number.
COUNTRY CODE	Indicates nationality of the institute or agency conducting the survey or expedition.
CRUISE NUMBER	A reference number assigned by NODC for storage-retrieval purposes. NODC Publication C-I, <i>Reference Source of Oceanographic Station Data</i> , give complete bibliographic and other pertinent information for each cruise.
SHIP CODE	Alphabetic representation of ship's name (or ICES numeric ship code).
LATITUDE	Degrees, minutes, and tenths of minutes, N or S.
LONGITUDE	Degrees, minutes, and tenths of minutes, E or W.
DRIFT INDICATOR	The letter D appears in this column if extensive drift occurred while on station.
MARSDEN SQUARE	
10°	Marsden square number according to the Marsden square system.
1°	The one-degree square number according to the Marsden square system.
STATION TIME (GMT)	Date and time given by the originator (GMT).
MONTH	Month (GMT).
DAY	Day (GMT).
HR. 1/10	GMT to nearest tenth of an hour.
YEAR	Year
ORIGINATOR'S	
CRUISE NUMBER	Alphabetic or alpha-numeric designator as assigned by the originator. If the year of the cruise forms part of the cruise numbering system, the year digits are found in preceding field.
STATION NUMBER	Originator's station number or designator.
DEPTH TO BOTTOM	Corrected or uncorrected sounding depth in meters.
MAX. DEPTH OF	
SAMPLES	Depth of deepest sample in hundreds of meters to nearest hundred-meter interval.

<i>Entry</i>	<i>Description of Field</i>
WAVE OBSERVATIONS DIR.	Direction from which the dominant waves are coming, in tens of degrees, according to WMO Code 0885.
HGT.	Height of dominant waves according to WMO Code 1555.
PER.	Period of dominant waves according to WMO Code 3155.
SEA AMT.	Sea amount (sea state) according to WMO Code 3700 (preceded by the letter A).
WEATHER CODE	If preceded by the letter X, weather according to WMO Code 4501. A numeric two-digit entry indicates weather according to WMO Code 4677.
*INSTR./CLOUD	This field is used either for recording instrument code when electronically obtained data are being reported, or for reporting cloud type and cloud amount when conventional Nansen cast data are being reported.
*INSTR.	A two character code representing instrument package of system.
TYPE	Cloud type according to WMO Code 0500.
AMT.	Cloud amount according to WMO Code 2700.
NODC STATION NUMBER	Assigned by NODC for data storage and retrieval purposes. The NODC Reference Identity and Station numbers combined, uniquely define each station in the NODC archives.
*DT/*SU/D	This indicator specifies that the reported data have been obtained electronically rather than by Nansen-type casts. U (up) and D (down) are cast indicators for electronically obtained serial data and specify that the data were taken while hoisting or lowering respectively.
WATER COLOR	Water color according to Forel-Ule Code.
TRANS. (m)	Water transparency in meters as determined by Secchi disc.
WIND DIR.	Direction from which wind is blowing in tens of degrees, according to WMO Code 0877.
SPEED OR FORCE	If preceded by letter S, wind speed in knots; if preceded by letter F, wind force in Beaufort code.
BAROMETER (mbs)	Barometric pressure in millibars; tens, units, and tenths places only.
AIR TEMPERATURE C°	
DRY BULB	Dry bulb air temperature in degrees centigrade, to tenths.
WET BULD	Wet bulb air temperature in degrees centigrade, to tenths.
VIS. CODE	Visibility according to WMO Code 4300.
NUMBER OBS. LEVEL	The number of observed levels associated with the station.
SPECIAL OBSERVATIONS	Entries in this space vary with individual cruises or stations. Information concerning entries in this field can be requested from the NODC.

2. A complete description of the codes can be found in NODC publication M-2 (Rev. August 1964), "Processing Physical and Chemical Data From Oceanographic Stations."

Table 1. Observed and interpolated oceanographic data for stations taken by USCGC DUANE Ocean Station BRAVO, 8-28 October 1966, prepared from NODC listing No. 31-771 DU.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER				
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT.	PER		SEA	TYPE		AMT			
31	771	DU	56240N	050465W	186	60	10	08	167	1966	058	001	3566	18	23	4	4		X1	8	16		0001			
						WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB															
								24	520	956	061	039	8	14												
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-3107	Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C									
		STD	0000	0614	3466	2729	0007938	0000	14752																	
167		OBS	0000	0614	34661	2729			14752																	
		STD	0010	0613	3466	2729	0007930	0008	14753																	
		STD	0020	0613	3467	2729	0007920	0016	14755																	
		STD	0030	0612	3467	2730	0007912	0024	14756																	
167		OBS	0031	0612	34667	2730			14756																	
		STD	0050	0562	3470	2738	0007089	0039	14740																	
167		OBS	0063	0530	34721	2744			14729																	
		STD	0075	0498	3475	2750	0006010	0055	14718																	
		STD	0100	0446	3480	2760	0005097	0069	14702																	
		STD	0125	0413	3484	2767	0004476	0081	14693																	
167		OBS	0127	0411	34841	2767			14692																	
		STD	0150	0413	3485	2767	0004426	0092	14697																	
167		OBS	0190	0414	34872	2769			14704																	
		STD	0200	0414	3487	2769	0004314	0114	14706																	
		STD	0250	0411	3488	2770	0004280	0135	14713																	
167		OBS	T0254	0410	34880	2770			14713																	
		STD	0300	0400	3488	2771	0004212	0157	14716																	
167		OBS	0315	0398	34879	2771			14718																	
167		OBS	0379	0393	34877	2772			14727																	
		STD	0400	0390	3487	2771	0004276	0199	14729																	
		STD	0500	0375	3486	2772	0004265	0242	14739																	
167		OBS	T0503	0375	34857	2772			14739																	
		STD	0600	0362	3485	2773	0004273	0285	14750																	
167		OBS	0627	0361	34853	2773			14754																	
		STD	0700	0370	3488	2774	0004254	0327	14770																	
167		OBS	T0751	0374	34888	2775			14780																	
		STD	0800	0370	3489	2775	0004282	0370	14787																	
		STD	0900	0363	3489	2776	0004295	0413	14801																	
167		OBS	0995	0359	34886	2776			14815																	
		STD	1000	0359	3489	2776	0004338	0456	14815																	
		STD	1100	0358	3489	2776	0004400	0500	14832																	
		STD	1200	0357	3489	2776	0004460	0544	14848																	
167		OBS	T1238	0356	34888	2776			14854																	
		STD	1300	0355	3489	2777	0004508	0589	14864																	
		STD	1400	0354	3489	2777	0004576	0634	14881																	
		STD	1500	0354	3490	2778	0004582	0680	14898																	
		STD	1750	0352	3492	2779	0004607	0795	14939																	
167		OBS	T1775	0352	34924	2780			14944																	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WAVE INDIC	MARDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
31	771	OU	5629 N	05059 W		186	60	10	10	121	1966	OSB	002	3450	06	29	4	3	X1	8	4	0002

WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		10	512	064	072	050	7	11	

MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₂ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S C
		STD	0000	0694	3461	2714	0009333	0000	14783								
	121	OBS	0000	0694	34610	2714			14783								
		STD	0010	0693	3461	2714	0009340	0009	14784								
		STD	0020	0693	3461	2714	0009339	0019	14786								
	121	OBS	0028	0692	34611	2714			14787								
		STD	0030	0692	3461	2714	0009346	0028	14787								
		STD	0050	0691	3461	2715	0009353	0047	14790								
	121	OBS	0054	0691	34613	2715			14791								
		STD	0075	0547	3470	2740	0006945	0067	14738								
		STD	0100	0433	3478	2760	0005109	0082	14696								
	121	OBS	0108	0410	34802	2764			14688								
		STD	0125	0413	3482	2765	0004621	0094	14692								
		STD	0150	0416	3484	2766	0004534	0106	14698								
	121	OBS	0162	0418	34848	2767			14701								
		STD	0200	0408	3485	2768	0004446	0128	14703								
	121	OBS	T0217	0404	34846	2768			14704								
		STD	0250	0399	3485	2769	0004378	0150	14707								
	121	OBS	0266	0397	34852	2769			14709								
		STD	0300	0397	3486	2770	0004330	0172	14715								
	121	OBS	0315	0396	34861	2770			14717								
		STD	0400	0386	3486	2771	0004300	0215	14727								
	121	OBS	T0414	0385	34861	2771			14729								
		STD	0500	0378	3486	2772	0004306	0258	14740								
	121	OBS	0517	0377	34861	2772			14742								
		STD	0600	0374	3487	2773	0004307	0301	14755								
	121	OBS	T0620	0374	34869	2773			14758								

REFERENCE CTRY CODE	SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCH	MARSOEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- TNER CODE	CLOUD CODES		NOOC STATION NUMBER
						10"	1"	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

31	771	DU	5640 N	05050 W		186	60	10	12	121	1966	058	003		3603	16	20	3	3		X2	2	8		0003
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		18	525	196	072	056	7	14	

		18	525	196	072	056	7	14	
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MESSNGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-30°	$\Sigma \Delta \sigma$ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	S CC
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	STD	0000	0709	3457	2709	0009814	0000	14788									
121	OBS	0000	0709	34572	2709			14788									
	STD	0010	0709	3457	2709	0009825	0010	14790									
	STD	0020	0708	3457	2709	0009828	0020	14791									
121	OBS	0026	0708	34573	2709			14792									
	STD	0030	0706	3457	2709	0009818	0029	14792									
	STD	0050	0697	3458	2711	0009713	0049	14792									
121	OBS	0050	0697	34575	2711			14792									
	STD	0075	0514	3472	2746	0006415	0069	14725									
	STD	0100	0406	3481	2765	0004604	0083	14685									
121	OBS	0101	0403	34814	2766			14684									
	STD	0125	0410	3483	2766	0004516	0094	14691									
	STD	0150	0417	3485	2767	0004462	0106	14698									
121	OBS	0152	0417	34853	2767			14699									
	STD	0200	0414	3487	2769	0004340	0128	14706									
121	OBS	T0205	0414	34873	2769			14707									
	STD	0250	0408	3488	2770	0004274	0149	14711									
121	OBS	0254	0407	34876	2770			14712									
	STD	0300	0403	3488	2771	0004248	0170	14718									
121	OBS	0304	0403	34880	2771			14718									
	STD	0400	0386	3487	2772	0004226	0213	14727									
121	OBS	T0405	0385	34870	2772			14727									
	STD	0500	0371	3485	2772	0004297	0255	14737									
121	OBS	0505	0370	34851	2772			14737									
	STD	0600	0365	3486	2773	0004301	0298	14751									
121	OBS	0605	0365	34855	2773			14752									
	STD	0700	0367	3487	2774	0004294	0341	14769									
	STD	0800	0369	3489	2775	0004291	0384	14786									
121	OBS	0806	0369	34886	2775			14787									
	STD	0900	0364	3488	2775	0004326	0427	14801									
	STD	1000	0358	3488	2776	0004368	0471	14815									
121	OBS	T1006	0358	34881	2776			14816									
	STD	1100	0357	3488	2776	0004416	0515	14831									
	STD	1200	0355	3489	2776	0004466	0559	14847									
	STD	1300	0354	3489	2777	0004514	0604	14864									
	STD	1400	0352	3489	2777	0004561	0649	14880									
	STD	1500	0351	3489	2777	0004608	0695	14896									
121	OBS	T1552	0350	34892	2777			14905									

REFERENCE		SHIP CODE	LATITUDE ' 1/10	LONGITUDE ' 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR, 1/10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	771	DU	56235N	050520W		186	60	10	15	195	1966	OS8	004		3658	14	24	4	8		X2	7	8		0004
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS.		NO. OBS.		SPECIAL OBSERVATIONS											
		COLOR CODE		TRANS. INT.		DIR.		SPEED OR FORCE		DRY BULB		WET BULB													

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. ML. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	PH	SC
		STD	0000	0707	3460	2711	0009586	0000	14788								
195		OBS	0000	0707	34599	2711			14788								
		STD	0010	0707	3460	2711	0009597	0010	14790								
		STD	0020	0706	3460	2711	0009614	0019	14791								
195		OBS	0023	0706	34598	2711			14791								
		STD	0030	0706	3460	2711	0009648	0029	14793								
195		OBS	0045	0707	34591	2711			14795								
		STD	0050	0659	3462	2720	0008882	0047	14778								
		STD	0075	0478	3475	2752	0005789	0066	14710								
195		OBS	0090	0416	34810	2764			14688								
		STD	0100	0425	3483	2765	0004650	0079	14693								
		STD	0125	0439	3487	2766	0004524	0090	14704								
195		OBS	0135	0440	34875	2767			14706								
		STD	0150	0432	3487	2767	0004446	0101	14705								
195		OBS	T0177	0422	34871	2768			14705								
		STD	0200	0417	3487	2769	0004338	0123	14707								
195		OBS	0221	0414	34877	2770			14709								
		STD	0250	0411	3488	2770	0004310	0145	14713								
195		OBS	0266	0410	34875	2770			14715								
		STD	0300	0408	3488	2770	0004298	0167	14720								
195		OBS	T0350	0401	34882	2771			14725								
		STD	0400	0383	3487	2772	0004201	0209	14726								
195		OBS	0436	0375	34867	2773			14728								
		STD	0500	0374	3486	2772	0004270	0251	14738								
195		OBS	T0524	0373	34859	2772			14742								
		STD	0600	0370	3486	2773	0004294	0294	14753								
		STD	0700	0366	3487	2774	0004293	0337	14768								
195		OBS	0706	0366	34869	2774			14769								
		STD	0800	0366	3488	2775	0004296	0380	14785								
195		OBS	T0882	0366	34888	2775			14799								
		STD	0900	0366	3489	2775	0004322	0423	14802								
		STD	1000	0365	3489	2776	0004381	0467	14818								
		STD	1100	0363	3489	2776	0004433	0511	14834								
		STD	1200	0360	3489	2776	0004466	0555	14850								
		STD	1300	0356	3489	2777	0004491	0600	14865								
195		OBS	1369	0353	34895	2777			14875								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSQEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER																																																																								
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT																																																																									
31	771	DU	56215N	050510W		186	60	10	17	159	1966	058	005	3612	36	33	2	2		X1	8	6	0005																																																																								
<table><tr><td colspan="4">WATER</td><td colspan="4">WIND</td><td colspan="4">AIR TEMP. °C</td><td colspan="4">NO. OBS. DEPTHS</td><td colspan="8">SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>TRANS. (m)</td><td>DIR.</td><td></td><td>SPEED OF FORCE</td><td>BARO-METER (mb)</td><td>DRY BULB</td><td>WET BULB</td><td>VIS. CODE</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>14</td><td>503</td><td>173</td><td>050</td><td>039</td><td>8</td><td>19</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>																								WATER				WIND				AIR TEMP. °C				NO. OBS. DEPTHS				SPECIAL OBSERVATIONS								COLOR CODE	TRANS. (m)	DIR.		SPEED OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE																				14	503	173	050	039	8	19													
WATER				WIND				AIR TEMP. °C				NO. OBS. DEPTHS				SPECIAL OBSERVATIONS																																																																															
COLOR CODE	TRANS. (m)	DIR.		SPEED OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE																																																																																							
				14	503	173	050	039	8	19																																																																																					
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH																																																																															
		STD	0000	0666	3458	2715	0009209	0000	14772																																																																																						
121		OBS	0000	0666	34578	2715			14772																																																																																						
		STD	0010	0666	3458	2716	0009209	0009	14773																																																																																						
		STD	0020	0666	3458	2716	0009225	0018	14775																																																																																						
121		OBS	0025	0666	34582	2716			14776																																																																																						
		STD	0030	0666	3458	2716	0009213	0028	14777																																																																																						
		STD	0050	0667	3459	2716	0009200	0046	14780																																																																																						
121		OBS	0052	0667	34592	2716			14781																																																																																						
		STD	0075	0519	3471	2744	0006547	0066	14726																																																																																						
		STD	0100	0416	3480	2763	0004782	0080	14689																																																																																						
121		OBS	0103	0408	34808	2765			14686																																																																																						
		STD	0125	0406	3482	2766	0004549	0092	14689																																																																																						
		STD	0150	0404	3484	2767	0004442	0103	14693																																																																																						
121		OBS	0155	0404	34839	2768			14694																																																																																						
		STD	0200	0413	3487	2769	0004326	0125	14705																																																																																						
121		OBS	T0207	0415	34879	2770			14707																																																																																						
		STD	0250	0428	3489	2769	0004357	0146	14720																																																																																						
121		OBS	0258	0429	34897	2769			14722																																																																																						
		STD	0300	0421	3489	2770	0004340	0168	14725																																																																																						
121		OBS	0309	0419	34892	2770			14726																																																																																						
		STD	0400	0392	3488	2772	0004223	0211	14730																																																																																						
121		OBS	T0409	0390	34875	2772			14730																																																																																						
		STD	0500	0376	3486	2772	0004291	0254	14739																																																																																						
121		OBS	0510	0375	34855	2772			14740																																																																																						
		STD	0600	0368	3487	2774	0004219	0296	14752																																																																																						
121		OBS	0611	0367	34872	2774			14754																																																																																						
		STD	0700	0367	3488	2775	0004225	0338	14769																																																																																						
		STD	0800	0368	3489	2775	0004243	0381	14786																																																																																						
121		OBS	0812	0368	34891	2775			14788																																																																																						
		STD	0900	0364	3489	2776	0004294	0423	14801																																																																																						
		STD	1000	0359	3489	2776	0004342	0467	14815																																																																																						
121		OBS	T1012	0358	34884	2776			14817																																																																																						
		STD	1100	0357	3489	2776	0004367	0510	14831																																																																																						
		STD	1200	0355	3489	2777	0004431	0554	14848																																																																																						
		STD	1300	0354	3489	2777	0004495	0599	14864																																																																																						
		STD	1400	0353	3490	2778	0004484	0644	14880																																																																																						
		STD	1500	0351	3490	2778	0004546	0689	14896																																																																																						
121		OBS	1504	0351	34901	2778			14897																																																																																						
		STD	1750	0350	3491	2779	0004647	0804	14938																																																																																						
		STD	2000	0348	3492	2780	0004747	0921	14980																																																																																						
159		OBS	T2008	0348	34924	2780			14981																																																																																						
		STD	2500	0316	3493	2783	0004608	1155	15052																																																																																						
159		OBS	2512	0315	34926	2783			15054																																																																																						
		STD	3000	0283	3493	2787	0004405	1380	15124																																																																																						
159		OBS	T3016	0281	34931	2787			15126																																																																																						
159		OBS	3472	0206	34946	2795			15174																																																																																						
159		OBS	3574	0184	34954	2797			15183																																																																																						

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	ORBIT INDICATOR	MARCOEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.						MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	771	DU	5628 N	05112 W		186	61	10	19	125	1966	058	006		3612	14	12	4	4		X2	5	8	0006
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		10	S15	095	078	072	7	14	
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ D OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S COD
		STD	0000	0661	3457	2715	0009213	0000	14770								
125		OBS	0000	0661	34569	2715			14770								
		STD	0010	0661	3457	2715	0009222	0009	14771								
		STD	0020	0660	3457	2715	0009240	0018	14772								
125		OBS	0024	0660	34568	2715			14773								
		STD	0030	0660	3457	2716	0009227	0028	14774								
125		OBS	0048	0659	34579	2716			14777								
		STD	0050	0644	3459	2719	0008914	0046	14771								
		STD	0075	0489	3474	2750	0005985	0064	14715								
125		OBS	0096	0411	34814	2765			14687								
		STD	0100	0411	3482	2765	0004580	0078	14687								
		STD	0125	0411	3484	2767	0004455	0089	14692								
125		OBS	0144	0409	34847	2768			14694								
		STD	0150	0407	3485	2768	0004364	0100	14694								
125		OBS	T0193	0400	34853	2769			14698								
		STD	0200	0400	3486	2770	0004265	0122	14700								
125		OBS	0240	0399	34876	2771			14706								
		STD	0250	0398	3488	2771	0004173	0143	14707								
125		OBS	0287	0394	34876	2772			14712								
		STD	0300	0394	3488	2772	0004179	0164	14714								
125		OBS	T0379	0388	34877	2772			14724								
		STD	0400	0385	3488	2773	0004170	0205	14727								
125		OBS	0470	0376	34879	2774			14734								
		STD	0500	0374	3488	2774	0004143	0247	14739								
125		OBS	0560	0370	34874	2774			14747								
		STD	0600	0367	3488	2774	0004171	0288	14752								
		STD	0700	0362	3488	2775	0004195	0330	14767								
125		OBS	0742	0360	34877	2775			14773								
		STD	0800	0359	3488	2775	0004213	0372	14782								
		STD	0900	0358	3489	2776	0004233	0415	14799								
125		OBS	T0922	0358	34889	2776			14802								
		STD	1000	0357	3489	2776	0004287	0457	14815								
		STD	1100	0356	3490	2777	0004284	0500	14831								
		STD	1200	0355	3490	2777	0004353	0543	14848								
		STD	1300	0354	3490	2778	0004422	0587	14864								
125		OBS	1378	0353	34903	2778			14877								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	EPOCH 10" 1"	MARSOEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CITY CODE	IO. NO.						MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
31	771	DU	5627 N	05022 W	186	60	10	23	127	1966	058	007	3603	16	22	3	3		X1	3	5	0007	
		WATER		WIND		BARO- METER (mba)		AIR TEMP. °C															
		COLOR CODE	TRANS. (m)	DIR	SPEED OR FORCE			DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTH'S	SPECIAL OBSERVATIONS											
				22	505	244		072	050	7	14												
MESSAGE TIME OF HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	SiO ₄ -Si $\mu g - ml/l$	pH	S CC					
		STD	0000	0683	3458	2713		0009421	0000	14778													
127		OBS	0000	0683	34579	2713				14778													
		STD	0010	0680	3458	2714		0009390	0009	14779													
		STD	0020	0678	3458	2714		0009380	0019	14780													
127		OBS	0027	0677	34581	2714				14780													
		STD	0030	0678	3458	2714		0009381	0028	14781													
		STD	0050	0681	3458	2714		0009461	0047	14786													
127		OBS	0052	0681	34580	2714				14786													
		STD	0075	0531	3468	2741		0006909	0067	14731													
		STD	0100	0425	3476	2759		0005175	0083	14692													
127		OBS	0104	0413	34771	2761				14688													
		STD	0125	0406	3480	2764		0004704	0095	14689													
		STD	0150	0400	3482	2766		0004517	0106	14691													
127		OBS	0156	0399	34826	2767				14692													
		STD	0200	0397	3484	2768		0004387	0129	14698													
127		OBS	T0209	0397	34845	2769				14700													
		STD	0250	0396	3486	2770		0004272	0150	14706													
127		OBS	0266	0395	34861	2770				14708													
		STD	0300	0394	3486	2771		0004269	0172	14714													
127		OBS	0324	0393	34866	2771				14717													
		STD	0400	0381	3487	2772		0004187	0214	14725													
127		OBS	T0438	0377	34870	2773				14729													
		STD	0500	0374	3487	2773		0004180	0256	14738													
127		OBS	0550	0372	34874	2774				14746													
		STD	0600	0372	3488	2774		0004225	0298	14754													
127		OBS	0660	0371	34877	2774				14764													
		STD	0700	0368	3488	2775		0004232	0340	14769													
		STD	0800	0363	3488	2775		0004261	0383	14784													
127		OBS	0881	0360	34881	2775				14796													
		STD	0900	0360	3488	2776		0004294	0425	14799													
		STD	1000	0358	3488	2776		0004341	0469	14815													
		STD	1100	0356	3489	2776		0004379	0512	14831													
127		OBS	T1102	0356	34887	2776				14831													
		STD	1200	0355	3489	2777		0004427	0556	14847													
		STD	1300	0353	3489	2777		0004483	0601	14863													
		STD	1400	0352	3490	2778		0004478	0646	14880													
		STD	1500	0352	3490	2778		0004557	0691	14897													
127		OBS	1650	0351	34907	2778				14922													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSEEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
DAY CODE	IO, NO.					10°	1°	MO	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	771	QU	5622 N	051085W		186°	61	10	24	131	1966	058	008	3658	15	13	2	4	X2	5	8	000	

31	771	DU	5622 N	051085W		186	61	10	24	131	1966	058	008		3650	15	13	2	4		X2	5	8	0008
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. OBTNS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE		DRY RULR	WET BULB			
		16	506	295	078	067	7	14	

			16	506	295	078	067	7	14
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	Si O ₄ -Si $\mu g - ml/l$	pH	S C
		STD	0000	0664	3458	2716	0009161	0000	14771								
131		OBS	0000	0664	34581	2716			14771								
		STD	0010	0663	3458	2716	0009164	0009	14772								
		STD	0020	0661	3458	2716	0009161	0018	14773								
131		OBS	0025	0660	34580	2716			14773								
		STD	0030	0659	3458	2717	0009140	0027	14774								
131		OBS	0049	0654	34583	2717			14775								
		STD	0050	0647	3459	2719	0008952	0046	14772								
		STD	0075	0494	3472	2748	0006191	0064	14716								
131		OBS	0098	0408	34798	2764			14685								
		STD	0100	0407	3480	2764	0004690	0078	14685								
		STD	0125	0401	3480	2765	0004653	0090	14687								
131		OBS	0147	0397	34805	2766			14689								
		STD	0150	0397	3481	2766	0004583	0101	14689								
		STD	0200	0395	3484	2768	0004378	0124	14697								
131		OBS	T0201	0395	34839	2768			14697								
131		OBS	0246	0398	34847	2769			14706								
		STD	0250	0398	3485	2769	0004370	0146	14707								
131		OBS	0295	0401	34875	2771			14716								
		STD	0300	0400	3488	2771	0004250	0167	14716								
131		OBS	T0392	0390	34870	2771			14727								
		STD	0400	0389	3487	2772	0004265	0210	14728								
131		OBS	0490	0379	34852	2771			14739								
		STD	0500	0379	3486	2772	0004324	0253	14740								
131		OBS	0589	0376	34877	2773			14754								
		STD	0600	0375	3488	2774	0004243	0295	14756								
		STD	0700	0369	3488	2774	0004258	0338	14770								
131		OBS	0787	0364	34879	2775			14782								
		STD	0800	0364	3488	2775	0004273	0381	14784								
		STD	0900	0360	3489	2776	0004275	0423	14799								
131		OBS	T0985	0358	34889	2776			14813								
		STD	1000	0358	3489	2776	0004306	0466	14815								
		STD	1100	0356	3489	2777	0004350	0510	14831								
		STD	1200	0354	3489	2777	0004393	0553	14847								
		STD	1300	0353	3490	2777	0004447	0597	14863								
		STD	1400	0353	3490	2777	0004505	0642	14880								
131		OBS	1471	0353	34899	2778			14892								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	771	00	56183N	051122W		186	61	10	25	120	1966	058	009	3603	14	14	2	3		X1	6	5	0009
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WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS	
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mb)	CRY BULB	WET BULB	VIS. CODE		
			18	513	261	083	072	7	14

MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S CLOUD
		STD	0000	0676	3456	2713	0009457	0000	14775								
		OBS	0000	0676	34562	2713			14775								
120		STD	0010	0674	3456	2713	0009454	0009	14776								
		STD	0020	0673	3456	2713	0009464	0019	14777								
120		OBS	0024	0672	34560	2713			14778								
		STD	0030	0672	3456	2713	0009452	0028	14778								
120		OBS	0048	0670	34564	2714			14781								
		STD	0050	0654	3458	2717	0009116	0047	14775								
		STD	0075	0489	3471	2748	0006210	0066	14714								
120		OBS	0095	0410	34784	2763			14686								
		STD	0100	0410	3479	2763	0004796	0080	14687								
		STD	0125	0411	3481	2765	0004676	0092	14691								
120		OBS	0143	0411	34833	2766			14695								
		STD	0150	0418	3484	2766	0004553	0103	14699								
120		OBS	T0191	0434	34879	2768			14713								
		STD	0200	0425	3487	2768	0004453	0126	14710								
120		OBS	0236	0403	34845	2768			14707								
		STD	0250	0403	3485	2769	0004420	0148	14709								
120		OBS	0280	0403	34858	2769			14714								
		STD	0300	0403	3487	2770	0004319	0170	14718								
120		OBS	T0369	0399	34887	2772			14728								
		STD	0400	0390	3488	2772	0004201	0212	14729								
120		OBS	0461	0378	34875	2773			14734								
		STD	0500	0376	3488	2773	0004180	0254	14739								
120		OBS	0552	0373	34876	2774			14747								
		STD	0600	0373	3488	2774	0004199	0296	14755								
		STD	0700	0371	3488	2774	0004265	0339	14770								
120		OBS	0735	0370	34884	2775			14776								
		STD	0800	0368	3489	2775	0004244	0381	14786								
		STD	0900	0365	3489	2776	0004296	0424	14801								
120		OBS	T0918	0364	34891	2776			14804								
		STD	1000	0362	3489	2776	0004330	0467	14817								
		STD	1100	0359	3489	2777	0004364	0510	14832								
		STD	1200	0356	3490	2777	0004395	0554	14848								
		STD	1300	0354	3490	2777	0004437	0598	14864								
120		OBS	1380	0352	34899	2778			14876								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARCOEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
CTRY CODE	ID. NO.					10°	1°	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	771	OU	56277N	051148W	180	61	10	26	129	1966	058 010	3475	15	15	3	3		X4	7	8	0010
						WATER		WIND		BARO- METER	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB									
									15	516	142	078	072	6	14						

MESSNGR TIME NR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	S CC
		STD	0000	0686	3456	2711	0009594	0000	14779								
129		OBS	0000	0686	34561	2711			14779								
		STD	0010	0684	3456	2712	0009591	0010	14780								
		STD	0020	0683	3456	2712	0009594	0019	14781								
129		OBS	0025	0682	34559	2712			14782								
		STD	0030	0681	3456	2712	0009586	0029	14782								
129		OBS	0049	0678	34565	2713			14784								
		STD	0050	0669	3457	2714	0009384	0048	14781								
		STD	0075	0494	3471	2747	0006265	0067	14716								
129		OBS	0099	0398	34798	2765			14681								
		STD	0100	0399	3480	2765	0004608	0081	14682								
		STD	0125	0413	3483	2766	0004551	0092	14692								
129		OBS	0148	0419	34851	2767			14699								
		STD	0150	0419	3485	2767	0004481	0104	14699								
129		OBS	T0198	0411	34852	2768			14704								
		STD	0200	0411	3485	2768	0004433	0126	14704								
129		OBS	0247	0407	34871	2770			14711								
		STD	0250	0407	3487	2770	0004305	0148	14711								
129		OBS	0295	0401	34875	2771			14716								
		STD	0300	0401	3488	2771	0004260	0169	14717								
129		OBS	T0390	0392	34875	2772			14728								
		STD	0400	0390	3487	2771	0004276	0212	14729								
129		OBS	0486	0378	34863	2772			14738								
		STD	0500	0377	3486	2772	0004272	0255	14740								
129		OBS	0582	0372	34867	2773			14751								
		STD	0600	0372	3487	2773	0004277	0297	14754								
		STD	0700	0372	3487	2774	0004321	0340	14771								
129		OBS	0777	0370	34879	2774			14783								
		STD	0800	0369	3488	2774	0004330	0384	14786								
		STD	0900	0363	3488	2775	0004346	0427	14800								
129		OBS	T0972	0360	34881	2775			14811								
		STD	1000	0359	3488	2776	0004369	0471	14815								
		STD	1100	0356	3489	2776	0004394	0514	14831								
		STD	1200	0353	3489	2777	0004418	0558	14847								
		STD	1300	0352	3489	2777	0004471	0603	14863								
		STD	1400	0352	3489	2777	0004529	0648	14880								
129		OBS	1459	0352	34895	2777			14890								

REFERENCE CTRY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT MAGN	MARS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
							10"	1"	MD DAY HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
31	771	DU	5619 N	05110 W		186 61	10	28	179	1966	058	011	3640	13	28	3	2		X2	6	8		0011
						WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. SM	DIR.	SPEED OR FORCE	BARO- METER (mbars)	DRY BULB	WET BULB	VIS. CODE										
									24	515	196	044	033										
MESSAGE TIME OF HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°		Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C C					
		STO	0000	0642	3457	2718	0008935		0000	14762													
179		OBS	0000	0642	34574	2718				14762													
		STO	0010	0642	3457	2718	0008950		0009	14764													
		STO	0020	0642	3457	2718	0008964		0018	14765													
179		OBS	0024	0642	34574	2718				14766													
		STO	0030	0642	3457	2718	0008979		0027	14767													
179		OBS	0048	0642	34573	2718				14770													
		STO	0050	0626	3459	2722	0008688		0045	14764													
		STO	0075	0466	3472	2751	0005884		0063	14705													
179		OBS	0092	0403	34777	2763				14682													
		STO	0100	0403	3479	2764	0004728		0076	14684													
		STO	0125	0405	3481	2765	0004614		0088	14689													
179		OBS	0133	0405	34816	2766				14690													
		STO	0150	0405	3483	2767	0004493		0099	14693													
179		OBS	0176	0405	34842	2768				14698													
		STO	0200	0406	3486	2769	0004329		0121	14702													
179		OBS	0218	0407	34862	2769				14706													
		STO	0250	0403	3486	2769	0004330		0143	14709													
179		OBS	0259	0402	34862	2770				14710													
		STO	0300	0401	3487	2770	0004498		0164	14717													
179		OBS	T0344	0398	34877	2771				14723													
		STO	0400	0390	3487	2771	0004276		0207	14729													
179		OBS	0429	0387	34865	2771				14732													
		STO	0500	0380	3486	2772	0004312		0250	14741													
179		OBS	T0512	0379	34863	2772				14742													
		STO	0600	0369	3486	2773	0004497		0293	14753													
179		OBS	0666	0365	34860	2773				14762													
		STO	0700	0365	3487	2774	0004277		0336	14768													
		STO	0800	0367	3488	2775	0004303		0379	14785													
179		OBS	T0825	0367	34881	2775				14790													
		STO	0900	0367	3488	2775	0004378		0422	14802													
		STO	1000	0365	3488	2775	0004440		0466	14818													
		STO	1100	0362	3488	2775	0004481		0511	14833													
		STO	1200	0358	3488	2776	0004508		0556	14849													
179		OBS	T1273	0354	34884	2776				14859													

Table II. Observed and interpolated oceanographic data for stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 24 November–12 December 1966, prepared from NODC listing No. 31–819 ML.

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DURT FOOT	MARS DEN SQUARE		STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
31	819	ML	56407N	05105 W		186	61	11	24	173	1966	B22	001	3566	07	24	5	2		X2	5	8	0001
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB											
									23	522	139				6	14							
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S CC				
		STD	0000	0485	3462	2741	0006747		0000		14699												
173		OBS	0000	0485	3462	2741					14699												
		STD	0010	0484	3462	2741	0006751		0007		14700												
173		OBS	0014	0483	34614	2741					14700												
		STD	0020	0483	3461	2741	0006805		0014		14702												
		STD	0030	0484	3461	2741	0006823		0020		14703												
173		OBS	0030	0484	34614	2741					14703												
		STD	0050	0483	3462	2741	0006823		0034		14706												
173		OBS	0060	0483	34617	2741					14708												
		STD	0075	0483	3462	2742	0006796		0051		14710												
173		OBS	0090	0483	34630	2742					14713												
		STD	0100	0480	3474	2751	0005915		0067		14715												
173		OBS	T0122	0475	34892	2764					14719												
		STD	0125	0475	3489	2764	0004735		0080		14719												
		STD	0150	0475	3491	2766	0004621		0092		14723												
173		OBS	0157	0475	34918	2766					14725												
173		OBS	0191	0466	34896	2765					14726												
		STD	0200	0463	3489	2765	0004717		0115		14726												
		STD	0250	0447	3489	2767	0004595		0139		14728												
173		OBS	T0261	0444	34885	2767					14728												
		STD	0300	0437	3489	2768	0004575		0161		14732												
173		OBS	0329	0432	34885	2768					14735												
173		OBS	T0397	0419	34882	2769					14740												
		STD	0400	0418	3488	2769	0004506		0207		14741												
173		OBS	0489	0399	34874	2771					14747												
		STD	0500	0397	3487	2771	0004446		0252		14748												
173		OBS	T0541	0391	34853	2770					14752												
		STD	0600	0383	3485	2771	0004525		0296		14759												
		STD	0700	0374	3485	2771	0004536		0342		14771												
173		OBS	T0716	0373	34847	2771					14774												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INCHES	MARS DEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
31	819	ML	56295N	050545W		186	60	11	25	137	1966	B22 002	3658	04	31	3	2		X1	6	7		0002
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB											
											190	028	022	7	09								
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ σ DYN. M. x 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CC				
		STD	0000	0559	3466	2735	0007325		0000		14730												
137		OBS	0000	0559	34655	2735					14730												
		STD	0010	0559	3466	2735	0007326		0007		14731												
		STD	0020	0558	3466	2736	0007328		0015		14733												
137		OBS	0027	0558	34658	2736					14734												
		STD	0030	0558	3466	2736	0007316		0022		14734												
		STD	0050	0559	3466	2736	0007351		0037		14738												
137		OBS	0053	0559	34662	2736					14739												
		STD	0075	0544	3470	2741	0006910		0054		14737												
		STD	0100	0522	3474	2746	0006387		0071		14732												
137		OBS	0107	0514	34745	2748					14730												
		STD	0125	0483	3477	2753	0005752		0086		14721												
		STD	0150	0450	3480	2759	0005193		0100		14712												
137		OBS	0160	0440	34808	2761					14709												
		STD	0200	0421	3482	2764	0004785		0125		14708												
137		OBS	T0214	0416	34821	2765					14708												
		STD	0250	0407	3483	2766	0004634		0148		14710												
137		OBS	0266	0405	34830	2767					14712												
		STD	0300	0404	3484	2768	0004554		0171		14718												
137		OBS	0318	0403	34845	2768					14720												
		STD	0400	0397	3486	2770	0004426		0216		14731												
137		OBS	T0422	0395	34861	2770					14734												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER									
CTRY CODE	ID. NO.					10"	1"	MO DAY HR,1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT								
31	819	ML	56278N	050578W	186	60	11	26 145	1966	B22	003	3566	05	28	3	4		X7	5	8	0003								
					WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS															
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB																		
								28	502	170	033	022	6	10															
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C C												
		STD	0000	0483	3461	2741	0006808	0000	14698																				
145		OBS	0000	0483	34610	2741			14698																				
		STD	0010	0483	3461	2741	0006804	0007	14700																				
		STD	0020	0483	3461	2741	0006808	0014	14701																				
145		OBS	0025	0483	34614	2741			14702																				
		STD	0030	0483	3462	2741	0006805	0020	14703																				
		STD	0050	0483	3462	2741	0006797	0034	14706																				
145		OBS	0051	0483	34619	2741			14707																				
		STD	0075	0473	3468	2747	0006286	0050	14707																				
		STD	0100	0463	3474	2753	0005756	0065	14708																				
145		OBS	0101	0463	34739	2753			14708																				
		STD	0125	0474	3485	2761	0005053	0079	14718																				
		STD	0150	0486	3493	2766	0004612	0091	14728																				
145		OBS	0151	0486	34931	2766			14728																				
		STD	0200	0475	3493	2767	0004552	0114	14732																				
145		OBS	T0207	0473	34927	2767			14732																				
		STD	0250	0458	3491	2767	0004560	0137	14733																				
145		OBS	0252	0457	34910	2767			14733																				
		STD	0300	0442	3489	2768	0004567	0160	14734																				
145		OBS	0301	0442	34894	2768			14734																				
145		OBS	T0397	0418	34882	2769			14740																				
		STD	0400	0417	3488	2769	0004494	0205	14740																				
145		OBS	0494	0394	34858	2770			14746																				

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO DAY HR,1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
31	819	ML	56295N	050545W	186	60	11	27 173	1966	B22	004	3566	16	22	3	2		X1	6	4	0004
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB									
								23	S06	170	061	050	7	14							
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C C				
		STD	0000	0477	3464	2743	0006556	0000	14696												
173		OBS	0000	0477	34635	2743			14696												
		STD	0010	0476	3464	2744	0006519	0007	14697												
		STD	0020	0474	3464	2744	0006509	0013	14698												
173		OBS	0027	0473	34642	2744			14699												
		STD	0030	0473	3464	2744	0006489	0020	14699												
		STD	0050	0470	3464	2745	0006479	0033	14701												
173		OBS	0053	0469	34642	2745			14701												
		STD	0075	0478	3478	2755	0005564	0048	14711												
		STD	0100	0484	3489	2763	0004836	0061	14719												
173		OBS	0106	0485	34913	2765			14720												
		STD	0125	0483	3492	2766	0004607	0072	14723												
		STD	0150	0480	3494	2767	0004513	0084	14726												
173		OBS	0160	0478	34940	2767			14727												
		STD	0200	0469	3493	2767	0004522	0106	14729												
173		OBS	T0214	0465	34920	2767			14730												
		STD	0250	0453	3492	2768	0004474	0129	14731												
173		OBS	0267	0448	34912	2769			14731												
		STD	0300	0439	3491	2770	0004388	0151	14733												
173		OBS	0320	0434	34913	2770			14734												
		STD	0400	0418	3490	2771	0004356	0195	14741												
173		OBS	T0424	0414	34896	2771			14743												
		STD	0500	0403	3489	2772	0004363	0238	14751												
173		OBS	0533	0398	34881	2772			14754												
		STD	0600	0385	3488	2772	0004369	0282	14760												
173		OBS	T0642	0379	34871	2773			14764												
		STD	0700	0376	3487	2773	0004373	0326	14773												
		STD	0800	0372	3488	2774	0004386	0369	14788												
173		OBS	0855	0370	34879	2774			14796												
		STD	0900	0368	3488	2775	0004404	0413	14803												
		STD	1000	0364	3488	2775	0004443	0458	14818												
173		OBS	T1069	0362	34885	2776			14828												
		STD	1100	0361	3489	2776	0004417	0502	14833												
		STD	1200	0358	3489	2776	0004463	0546	14849												
		STD	1300	0356	3489	2777	0004520	0591	14865												
		STD	1400	0354	3490	2778	0004503	0636	14881												
		STD	1500	0353	3490	2778	0004570	0682	14897												
173		OBS	T1621	0352	34903	2778			14917												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR.1/10	MARSOEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10'	1"	MO	DAY		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		TYPE	AMT	

31	819	ML	56315N	050598W	186 60 11 28 147	1966	822	005	3621	15	18	2	2					X2	5	8	0005
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WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	CIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		35	505	260	056	044	7	14	

		35	505	260	056	044	7	14	
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MESSENGER TIME OF HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - at/l$	TOTAL-P $\mu g - at/l$	NO ₂ -N $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	Si O ₄ -Si $\mu g - at/l$	PH	S C
		STD	0000	0483	3462	2741	0006741	0000	14698								
147		OBS	0000	0483	34619	2741			14698								
		STD	0010	0482	3462	2742	0006734	0007	14699								
		STD	0020	0481	3462	2742	0006734	0013	14701								
147		OBS	0026	0480	34621	2742			14701								
		STD	0030	0480	3462	2742	0006709	0020	14702								
		STD	0050	0478	3463	2743	0006663	0034	14704								
147		OBS	0052	0478	34631	2743			14705								
		STD	0075	0475	3466	2746	0006430	0050	14708								
		STD	0100	0471	3472	2751	0005970	0065	14711								
147		OBS	0103	0471	34730	2752			14712								
		STD	0125	0482	3486	2761	0005069	0079	14722								
		STD	0150	0495	3495	2766	0004569	0091	14732								
147		OBS	0154	0497	34956	2767			14734								
		STD	0200	0481	3494	2767	0004545	0114	14734								
147		OBS	T0206	0479	34939	2767			14735								
		STD	0250	0458	3492	2768	0004493	0137	14733								
147		OBS	0257	0455	34913	2768			14733								
		STD	0300	0436	3490	2769	0004452	0159	14732								
147		OBS	0309	0433	34894	2769			14732								
		STD	0400	0412	3488	2770	0004417	0203	14738								
147		OBS	T0411	0410	34881	2770			14739								
		STD	0500	0398	3488	2771	0004382	0247	14749								
147		OBS	0513	0396	34880	2772			14750								
		STD	0600	0382	3487	2772	0004373	0291	14758								
147		OBS	T0616	0380	34866	2772			14760								
		STD	0700	0377	3487	2773	0004407	0335	14773								
		STD	0800	0372	3488	2774	0004401	0379	14787								
147		OBS	0821	0371	34876	2774			14791								
		STD	0900	0366	3488	2774	0004411	0423	14802								
		STD	1000	0361	3488	2775	0004430	0467	14816								
147		OBS	T1022	0360	34877	2775			14820								
		STD	1100	0359	3488	2775	0004464	0512	14832								
		STD	1200	0357	3488	2776	0004529	0557	14848								
		STD	1300	0356	3488	2776	0004590	0602	14864								
		STD	1400	0354	3488	2776	0004651	0649	14880								
		STD	1500	0353	3488	2776	0004711	0695	14897								
147		OBS	T1538	0352	34883	2776			14903								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	OBS INDIC	MARDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
31	819	ML	56325N	051152W		186	61	11	29	125	1966	B22	006	3621	29	10	2	0		X9	X19		0006
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE	METER (mba)		DRY RULE	WET RULE														
					10	S20	210	044	039	3	19												
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t 17		Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C				
		STD	0000	0438	3463	2747		0006168		0000	14680												
125		OBS	0000	0438	34632	2747					14680												
		STD	0010	0437	3463	2748		0006157		0006	14681												
		STD	0020	0435	3463	2748		0006153		0012	14682												
125		OBS	0029	0434	34634	2748					14683												
		STD	0030	0434	3463	2748		0006144		0018	14683												
		STD	0050	0436	3464	2749		0006111		0031	14687												
125		OBS	0057	0437	34647	2749					14689												
		STD	0075	0424	3470	2754		0005590		0045	14687												
		STD	0100	0413	3477	2761		0004976		0059	14687												
125		OBS	0113	0412	34796	2763					14690												
		STD	0125	0420	3482	2764		0004699		0071	14695												
		STD	0150	0431	3486	2766		0004540		0082	14704												
125		OBS	0168	0435	34872	2767					14709												
		STD	0200	0429	3487	2768		0004466		0105	14712												
125		OBS	T0221	0424	34876	2768					14713												
		STD	0250	0416	3487	2769		0004408		0127	14715												
125		OBS	0274	0410	34866	2769					14716												
		STD	0300	0405	3486	2769		0004385		0149	14718												
125		OBS	0328	0400	34861	2770					14721												
		STD	0400	0394	3486	2770		0004386		0193	14730												
125		OBS	T0435	0390	34861	2771					14734												
		STD	0500	0381	3486	2772		0004346		0236	14741												
125		OBS	0543	0376	34860	2772					14746												
		STD	0600	0370	3485	2772		0004389		0280	14753												
125		OBS	T0651	0366	34848	2772					14760												
		STD	0700	0366	3486	2773		0004360		0324	14768												
		STD	0800	0367	3487	2774		0004378		0368	14785												
125		OBS	0874	0367	34875	2774					14798												
		STD	0900	0366	3488	2774		0004418		0411	14802												
		STD	1000	0362	3488	2775		0004449		0456	14817												
125		OBS	T1097	0359	34876	2775					14832												
		STD	1100	0359	3488	2775		0004496		0501	14832												
		STD	1200	0358	3488	2775		0004559		0546	14848												
		STD	1300	0357	3488	2775		0004621		0592	14865												
		STD	1400	0356	3488	2776		0004682		0638	14881												
		STD	1500	0354	3488	2776		0004729		0685	14897												
167		OBS	T1653	0351	34881	2776					14922												
125		OBS	T1697	0350	34898	2778					14929												
		STD	1750	0350	3490	2778		0004724		0803	14938												
		STD	2000	0349	3491	2779		0004826		0923	14980												
167		OBS	T2121	0348	34915	2779					15001												
		STD	2500	0323	3493	2783		0004681		1161	15055												
167		OBS	T2621	0314	34935	2784					15072												
167		OBS	T2773	0301	34937	2786					15093												
167		OBS	2875	0294	34937	2786					15108												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CITY CODE	ID. NO.					10°	1°	MO	DAY	HR. 1/10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	

31	819	ML	5638 N	05049 W		186	60	12	08	128	1966	822	007		3658	15	17	2	3	X2	5	8	0007
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		17	508	170	022	011	7	13	

		17	508	170	022	011	7	13	
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MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P $\mu g - at/l$	TOTAL-P $\mu g - at/l$	NO ₂ -N $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	SiO ₄ -Si $\mu g - at/l$	pH	S C C
		STD	0000	0399	3463	2751	0005820	0000	14663								
135		OBS	0000	0399	34626	2751			14663								
		STD	0010	0399	3463	2751	0005837	0006	14665								
		STD	0020	0399	3463	2751	0005847	0012	14666								
135		OBS	0026	0399	34624	2751			14667								
		STD	0030	0399	3462	2751	0005866	0018	14668								
		STD	0050	0400	3463	2751	0005878	0029	14672								
135		OBS	0050	0400	34626	2751			14672								
		STD	0075	0402	3463	2751	0005894	0044	14677								
		STD	0100	0403	3463	2751	0005918	0059	14681								
135		OBS	0100	0403	34631	2751			14681								
		STD	0125	0411	3477	2761	0004980	0072	14691								
135		OBS	0149	0416	34846	2767			14698								
		STD	0150	0416	3485	2767	0004457	0084	14698								
		STD	0200	0416	3486	2768	0004448	0106	14706								
135		OBS	T0200	0416	34858	2768			14706								
135		OBS	0249	0411	34860	2768Q											
		STD	0250	0411	3485	2768	0004505	0129	14712								
		STD	0300	0406	3484	2767	0004575	0152	14718								
135		OBS	T0395	0396	3482Q	2767Q											
		STD	0400	0395	3483	2768	0004628	0198	14730								
135		OBS	0490	0383	34817	2768			14740								
		STD	0500	0382	3482	2768	0004677	0244	14741								
135		OBS	T0583	0377	34813	2768			14753								
		STD	0600	0377	3481	2768	0004734	0291	14756								
		STD	0700	0373	3482	2769	0004755	0339	14770								
135		OBS	0774	0371	34820	2769			14782								
		STD	0800	0370	3482	2770	0004779	0386	14786								
		STD	0900	0366	3482	2770	0004803	0434	14801								
135		OBS	0968	0364	34824	2770			14811								
		STD	1000	0363	3483	2771	0004837	0482	14816								
		STD	1100	0360	3483	2771	0004870	0531	14832								
		STD	1200	0358	3483	2771	0004913	0580	14848								
		STD	1300	0356	3483	2772	0004947	0629	14864								
		STD	1400	0355	3483	2772	0005000	0679	14880								
135		OBS	T1487	0354	34836	2772			14895								

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	MARS INDIC	MARS DEN SQUARE		STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S' MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	819	ML	56285N	05059 W	186	60	12	12	141	1966	822	008		3621	13	35	3	2		X8	5	8	0008
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WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			

		04	S15	140	006	006	7	14	
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-RT07	Σ Δ D OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₂ -Si μg - ml/l	pH	1 CODE
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		STD	0000	0400	3461	2750	0005935	0000	14663								
141		OBS	0000	0400	34612	2750			14663								
		STD	0010	0401	3461	2750	0005954	0006	14665								
		STD	0020	0402	3461	2750	0005980	0012	14667								
141		OBS	0022	0402	34611	2750			14668								
		STD	0030	0402	3461	2750	0005991	0018	14669								
141		OBS	0043	0401	34611	2750			14671								
		STD	0050	0400	3462	2751	0005925	0030	14672								
		STD	0075	0397	3466	2754	0005619	0044	14675								
141		OBS	0086	0396	34669	2755			14677								
		STD	0100	0402	3468	2755	0005540	0058	14682								
		STD	0125	0411	3470	2756	0005506	0072	14690								
141		OBS	0128	0412	34703	2756			14691								
		STD	0150	0421	3475	2759	0005259	0085	14699								
141		OBS	T0170	0425	34782	2761			14704								
		STD	0200	0419	3479	2762	0004989	0111	14707								
141		OBS	0213	0418	34794	2763			14708								
		STD	0250	0420	3481	2763	0004934	0136	14715								
141		OBS	0256	0420	34807	2763			14717								
		STD	0300	0401	3481	2766	0004749	0160	14716								
146		OBS	0301	0400	34809	2766			14716								
146		OBS	0374	0401	34811	2766			14728								
		STD	0400	0398	3481	2766	0004810	0208	14731								
146		OBS	T0452	0392	34806	2766			14737								
		STD	0500	0384	3480	2767	0004825	0256	14742								
		STD	0600	0374	3480	2768	0004806	0304	14754								
146		OBS	0626	0372	34798	2768			14758								
		STD	0700	0373	3480	2768	0004880	0353	14770								
		STD	0800	0374	3481	2768	0004905	0402	14787								
146		OBS	0814	0374	34813	2769			14790								
		STD	0900	0373	3481	2769	0004958	0451	14804								
		STD	1000	0371	3481	2769	0005013	0501	14820								
		STD	1100	0368	3481	2769	0005061	0551	14835								
		STD	1200	0364	3482	2770	0005089	0602	14850								
		STD	1300	0358	3482	2770	0005096	0653	14864								
146		OBS	T1324	0356	34815	2771			14868								

Table III. Observed and interpolated oceanographic data for stations taken by USCGC HUMBOLDT at Ocean Station BRAVO, 7-31 January 1967, prepared from NODC listing No. 31-870 HU.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH FOOT	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
31	870	HU	56425N	05046 W		186	60	01	07	198	1967	B22	001	3566	14	34	4	3	X6	5	8	0001
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
									34	S10	085	039	036	6	14							
MESSAGE TIME OF HR 1/10	CASE NO.	CARGO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_{θ}		$\Sigma \Delta \sigma$ OTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	S CODE			
		STD	0000	0396	3477	2763		0004722	0000	14664												
198		OBS	0000	0396	34768	2763				14664												
		STD	0010	0391	3477	2763		0004698	0005	14663												
		STD	0020	0388	3476	2763		0004693	0009	14664												
198		OBS	0024	0387	34763	2763				14664												
		STD	0030	0388	3476	2763		0004697	0014	14665												
198		OBS	0047	0389	34768	2763				14669												
		STD	0050	0392	3477	2763		0004716	0024	14670												
		STD	0075	0411	3480	2764		0004706	0035	14683												
198		OBS	0094	0418	34815	2764				14689												
		STD	0100	0416	3482	2764		0004669	0047	14689												
		STD	0125	0408	3481	2765		0004627	0059	14690												
198		OBS	0143	0405	34811	2765				14692												
		STD	0150	0405	3481	2765		0004632	0070	14693												
198		OBS	T0193	0408	34819	2766				14701												
		STD	0200	0414	3483	2766		0004636	0093	14705												
198		OBS	0238	0441	34870	2766				14723												
		STD	0250	0449	3488	2766		0004692	0117	14729												
198		OBS	0285	0464	34914	2767				14741												
		STD	0300	0458	3491	2767		0004622	0140	14741												
198		OBS	T0377	0431	34895	2769				14742												
		STD	0400	0426	3489	2769		0004519	0186	14744												
198		OBS	0475	0411	34883	2770				14750												
		STD	0500	0407	3488	2770		0004482	0231	14752												
198		OBS	0571	0397	34872	2771				14760												
		STD	0600	0391	3486	2771		0004547	0276	14762												
		STD	0700	0375	3485	2771		0004533	0321	14772												
198		OBS	0762	0370	34842	2771				14780												
		STD	0800	0371	3485	2772		0004573	0367	14787												
		STD	0900	0373	3487	2773		0004535	0412	14804												
198		OBS	0953	0374	34872	2773				14814												
		STD	1000	0374	3487	2773		0004620	0458	14822												
		STD	1100	0373	3487	2773		0004687	0505	14838												
		STD	1200	0369	3487	2774		0004715	0552	14853												
		STD	1300	0364	3487	2774		0004737	0599	14868												
		STD	1400	0358	3488	2775		0004736	0646	14882												
198		OBS	T1445	0354	34875	2776				14888												

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH METER	MARDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER							
CIRY CODE	IO. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT								
						186	61	01	08	146																				
31	870	HU	5626 N	05102 W		186	61	01	08	146	1967	822	002		3566	16	35	4	3		X7	5	8	0002						
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS														
						COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE	METER (mbars)		DRY BULB	WET BULB																	
									33	522	196	022	022	4	14															
MESSENGER TIME OF HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _θ		Σ Δ θ OYN. M. X 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CC											
		STD	0000	0379	3467	2756	0005324		0000		14655																			
146		OBS	0000	0379	34666	2756					14655																			
		STD	0010	0379	3467	2757	0005300		0005		14657																			
		STD	0020	0378	3467	2757	0005305		0011		14658																			
146		OBS	0026	0378	34677	2757					14659																			
		STD	0030	0379	3468	2758	0005244		0016		14660																			
		STD	0050	0383	3469	2758	0005226		0026		14665																			
146		OBS	0051	0383	34694	2758					14666																			
		STD	0075	0383	3470	2759	0005176		0039		14670																			
		STD	0100	0383	3471	2759	0005124		0052		14674																			
146		OBS	0103	0383	34717	2760					14675																			
		STD	0125	0402	3477	2762	0004888		0065		14687																			
		STD	0150	0415	3481	2764	0004747		0077		14697																			
146		OBS	0155	0417	34813	2764					14699																			
		STD	0200	0415	3484	2766	0004572		0100		14706																			
146		OBS	T0209	0414	34841	2767					14707																			
		STD	0250	0406	3484	2767	0004527		0123		14710																			
146		OBS	0257	0405	34839	2767					14711																			
		STD	0300	0406	3485	2768	0004499		0145		14718																			
146		OBS	0308	0406	34851	2768					14720																			
		STD	0400	0394	3485	2770	0004446		0190		14730																			
146		OBS	T0410	0393	34853	2770					14731																			
		STD	0500	0381	3485	2771	0004413		0234		14741																			
146		OBS	0511	0380	34851	2771					14743																			
		STD	0600	0376	3486	2772	0004381		0278		14756																			
146		OBS	T0613	0375	34861	2772					14757																			
		STD	0700	0371	3486	2773	0004391		0322		14770																			
		STD	0800	0367	3487	2773	0004418		0366		14785																			
146		OBS	0820	0366	34865	2774					14788																			
		STD	0900	0364	3487	2774	0004432		0411		14801																			
		STD	1000	0362	3488	2775	0004449		0455		14817																			
146		OBS	T1031	0361	34878	2775					14821																			
		STD	1100	0359	3488	2775	0004474		0500		14832																			
		STD	1200	0357	3488	2776	0004518		0545		14848																			
		STD	1300	0355	3488	2776	0004560		0590		14864																			
		STD	1400	0353	3489	2776	0004600		0636		14880																			
		STD	1500	0352	3489	2777	0004660		0682		14897																			
146		OBS	T1587	0350	34888	2777					14910																			

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	870					HU	5628 N	05108 W	186	61	01		09	128			1967	822	003	3566		16	31	
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
COLOR CODE		TRANS. IMI	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																		
								33	510	186	022	014	7	14										
MESSAGE TIME HR. 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C							
		STO	0000	0374	3467	2757	0005284	0000	14653															
128		OBS	0000	0374	34665	2757			14653															
		STO	0010	0374	3467	2757	0005293	0005	14655															
		STO	0020	0374	3467	2757	0005294	0011	14656															
128		OBS	0026	0374	34666	2757			14657															
		STO	0030	0375	3467	2757	0005283	0016	14659															
		STO	0050	0380	3469	2758	0005197	0026	14664															
128		OBS	0051	0380	34692	2758			14664															
		STO	0075	0381	3471	2760	0005080	0039	14669															
		STO	0100	0382	3473	2761	0004963	0052	14674															
128		OBS	0103	0382	34731	2761			14674															
		STO	0125	0393	3475	2762	0004947	0064	14683															
		STO	0150	0401	3477	2762	0004902	0076	14691															
128		OBS	0156	0403	34772	2762			14692															
		STO	0200	0408	3482	2766	0004648	0100	14702															
128		OBS	0207	0409	34827	2766			14704															
		STO	0250	0413	3486	2768	0004453	0123	14713															
128		OBS	0258	0414	34862	2768			14715															
		STO	0300	0407	3486	2769	0004407	0145	14719															
128		OBS	0310	0405	34864	2769			14720															
		STO	0400	0395	3486	2770	0004397	0189	14731															
128		OBS	T0411	0394	34860	2770			14732															
		STO	0500	0385	3486	2771	0004389	0233	14743															
128		OBS	0517	0384	34857	2771			14745															
		STO	0600	0378	3486	2772	0004403	0277	14757															
128		OBS	0623	0376	34863	2772			14760															
		STO	0700	0372	3487	2773	0004351	0321	14771															
		STO	0800	0367	3487	2774	0004381	0365	14785															
128		OBS	0832	0366	34875	2774			14790															
		STO	0900	0364	3488	2775	0004395	0408	14801															
		STO	1000	0361	3488	2775	0004444	0453	14816															
128		OBS	T1043	0360	34875	2775			14823															
		STO	1100	0359	3488	2775	0004467	0497	14832															
		STO	1200	0356	3488	2776	0004513	0542	14848															
		STO	1300	0354	3488	2776	0004569	0587	14864															
		STO	1400	0352	3489	2777	0004551	0633	14880															
		STO	1500	0351	3489	2777	0004618	0679	14896															
128		OBS	T1560	0350	34899	2778			14906															

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT INDIC	MARSOEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
31	870	HU	5628 N	05108 W		186	61	01	10	129	1967	822	004	3566	14	22	4	4		X8	3	7	0004
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
									24	524	098	019	003	7	14								
MESSNGR TIME OF HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	Si O ₂ -Si μg - ml/l	pH	S C C						
		STD	0000	0373	3469	2759	0005064	0000	14653														
129		OBS	0000	0373	34693	2759			14653														
		STD	0010	0373	3469	2759	0005069	0005	14655														
		STD	0020	0372	3469	2759	0005073	0010	14656														
129		OBS	0023	0372	34693	2759			14656														
		STD	0030	0373	3469	2759	0005090	0015	14658														
129		OBS	0044	0374	34693	2759			14661														
		STD	0050	0375	3470	2760	0005075	0025	14662														
		STD	0075	0378	3472	2761	0004977	0038	14668														
129		OBS	0098	0381	34732	2761			14673														
		STD	0100	0381	3473	2761	0004942	0050	14674														
		STD	0125	0385	3474	2762	0004956	0063	14679														
129		OBS	0132	0386	34740	2762			14681														
		STD	0150	0394	3479	2765	0004681	0075	14688														
129		OBS	0177	0404	34839	2768			14697														
		STD	0200	0413	3485	2767	0004476	0098	14705														
129		OBS	0221	0417	34853	2767			14710														
		STD	0250	0412	3486	2768	0004478	0120	14713														
129		OBS	0264	0410	34856	2768			14714														
		STD	0300	0405	3486	2769	0004430	0142	14718														
129		OBS	T0358	0398	34860	2770			14725														
		STD	0400	0396	3486	2770	0004407	0186	14731														
129		OBS	0442	0392	34862	2771			14736														
		STD	0500	0384	3486	2772	0004356	0230	14743														
129		OBS	T0529	0381	34863	2772			14746														
		STD	0600	0379	3487	2773	0004340	0274	14757														
		STD	0700	0375	3487	2773	0004384	0317	14772														
129		OBS	0716	0374	34875	2774			14774														
		STD	0800	0369	3488	2774	0004332	0361	14786														
		STD	0900	0364	3489	2775	0004309	0404	14801														
129		OBS	0910	0363	34887	2776			14802														
		STD	1000	0359	3489	2776	0004340	0447	14816														
		STD	1100	0356	3489	2776	0004394	0491	14831														
		STD	1200	0354	3488	2776	0004459	0535	14847														
		STD	1300	0352	3488	2776	0004523	0580	14863														
		STD	1400	0352	3488	2776	0004610	0626	14880														
129		OBS	T1416	0352	34882	2776			14882														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS INDEX	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	ID. NO.					10°	1°	MO	OAT	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	870	HU	5629 N	05058 W		186	60	01	11	125	1967	B22	005		3566	16	17	4	4		X7	5	8	0005
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			21	508	098	-025	-040	5	14	
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DTN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	1 C
		STO	0000	0372	3468	2758	0005190	0000	14652								
125		OBS	0000	0372	34675	2758			14652								
		STO	0010	0371	3467	2758	0005228	0005	14654								
		STO	0020	0371	3467	2758	0005231	0010	14655								
125		OBS	0026	0370	34669	2758			14656								
		STO	0030	0371	3467	2758	0005239	0016	14657								
		STO	0050	0373	3468	2758	0005205	0026	14661								
125		OBS	0051	0373	34685	2759			14661								
		STO	0075	0380	3471	2760	0005083	0039	14669								
		STO	0100	0388	3473	2761	0004994	0052	14676								
125		OBS	0103	0389	34737	2761			14677								
		STO	0125	0385	3474	2762	0004923	0064	14679								
		STO	0150	0380	3475	2763	0004860	0076	14681								
125		OBS	0154	0379	34748	2763			14682								
		STO	0200	0415	3481	2764	0004797	0100	14705								
125		OBS	T0208	0418	34819	2764			14708								
		STO	0250	0411	3484	2767	0004580	0124	14712								
125		OBS	0258	0410	34848	2768			14713								
		STO	0300	0408	3486	2769	0004443	0146	14719								
125		OBS	0310	0407	34864	2769			14721								
		STO	0400	0409	3487	2770	0004478	0191	14736								
125		OBS	T0413	0409	34875	2770			14739								
		STO	0500	0398	3487	2771	0004457	0236	14749								
125		OBS	0517	0395	34868	2771			14750								
		STO	0600	0380	3487	2772	0004373	0280	14758								
125		OBS	T0623	0377	34866	2772			14760								
		STO	0700	0375	3488	2774	0004310	0323	14772								
		STO	0800	0372	3489	2775	0004290	0366	14788								
125		OBS	0830	0371	34892	2775			14792								
		STO	0900	0366	3489	2776	0004285	0409	14802								
		STO	1000	0361	3490	2776	0004297	0452	14817								
125		OBS	T1040	0359	34896	2777			14822								
		STO	1100	0358	3490	2777	0004330	0495	14832								
		STO	1200	0356	3490	2777	0004377	0539	14848								
		STO	1300	0355	3490	2778	0004422	0583	14864								
		STO	1400	0353	3490	2778	0004467	0627	14880								
		STO	1500	0351	3491	2778	0004510	0672	14896								
125		OBS	T1573	0350	34907	2778			14908								

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REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DEPTH METER	MARS DEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CITY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
31	870	HU	5630 N	05100 W		186	61	01	13 122	1967	B22	007	3566	14	34	3	4		X7	7	8	0007	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB		WET BULB															
						33		S18		959		000 000		3 14									
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME AND SALTY-310°		Σ Δ ρ DYN. M. X 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C			
		STD	0000	0364	3470	2760		0004955		0000		14649											
	122	OBS	0000	0364	34696	2760						14649											
		STD	0010	0364	3470	2760		0004957		0005		14651											
		STD	0020	0364	3470	2760		0004958		0010		14653											
	122	OBS	0023	0364	34698	2760						14653											
		STD	0030	0364	3470	2761		0004954		0015		14654											
	122	OBS	0046	0365	34711	2761						14658											
		STD	0050	0367	3471	2761		0004900		0025		14659											
		STD	0075	0377	3473	2762		0004899		0037		14668											
	122	OBS	0090	0381	34738	2762						14672											
		STD	0100	0381	3474	2762		0004877		0049		14673											
		STD	0125	0380	3475	2763		0004818		0061		14677											
	122	OBS	0135	0380	34753	2763						14679											
		STD	0150	0379	3475	2763		0004796		0073		14681											
	122	OBS	T0182	0376	34755	2764						14685											
		STD	0200	0410	3481	2765		0004744		0097		14703											
	122	OBS	0225	0438	34868	2766						14720											
		STD	0250	0434	3487	2767		0004572		0120		14722											
	122	OBS	0268	0430	34879	2768						14724											
		STD	0300	0417	3487	2769		0004469		0143		14723											
	122	OBS	T0353	0403	34863	2770						14726											
		STD	0400	0403	3488	2771		0004341		0187		14734											
	122	OBS	0439	0400	34881	2771						14739											
		STD	0500	0390	3487	2771		0004369		0231		14745											
	122	OBS	T0529	0386	34869	2772						14748											
		STD	0600	0380	3487	2773		0004336		0274		14758											
		STD	0700	0374	3488	2774		0004328		0318		14772											
	122	OBS	0721	0373	34877	2774						14775											
		STD	0800	0370	3488	2774		0004341		0361		14787											
	122	OBS	T0880	0367	34884	2775						14799											
		STD	0900	0366	3489	2775		0004344		0404		14802											
		STD	1000	0363	3489	2776		0004379		0448		14817											
		STD	1100	0360	3489	2776		0004405		0492		14833											
		STD	1200	0357	3489	2777		0004437		0536		14848											
		STD	1300	0355	3490	2777		0004471		0581		14864											
	122	OBS	T1393	0353	34897	2777						14879											

REFERENCE CTRY CODE	SHIP NO.	SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT INDIC	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

31	870	HU	5630 N	05044 W		186	60	01	14	129	1967	B22	008		3566	17	01	4	4		X1	8	3	0008
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
			30	513	078	-008	-026	7	14

MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ OYN. M. X 10 ²	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CC
		STD	0000	0359	3470	2761	0004671	0000	14647								
		OBS	0000	0359	34701	2761			14647								
		STD	0010	0359	3470	2761	0004883	0005	14649								
		STD	0020	0360	3470	2761	0004902	0010	14651								
		OBS	0028	0360	34700	2761			14652								
		STD	0030	0360	3470	2761	0004914	0015	14653								
		STD	0050	0362	3470	2761	0004924	0025	14657								
		OBS	0055	0362	34704	2761			14658								
		STD	0075	0363	3471	2762	0004906	0037	14661								
		STD	0100	0366	3471	2761	0004957	0049	14667								
		OBS	0110	0366	34719	2762			14669								
		STD	0125	0369	3473	2762	0004858	0061	14672								
		STD	0150	0376	3475	2763	0004799	0073	14680								
		OBS	0165	0382	34770	2764			14685								
		STD	0200	0411	3483	2766	0004605	0097	14704								
		OBS	T0219	0419	34855	2767			14711								
		STD	0250	0413	3486	2768	0004473	0120	14713								
		OBS	0273	0410	34858	2768			14716								
		STD	0300	0407	3486	2769	0004437	0142	14719								
		OBS	0327	0404	34866	2770			14722								
		STD	0400	0395	3486	2770	0004382	0186	14731								
		OBS	T0439	0391	34861	2771			14735								
		STD	0500	0386	3487	2772	0004325	0230	14743								
		OBS	0548	0383	34872	2772			14750								
		STD	0600	0383	3488	2773	0004309	0273	14759								
		OBS	T0660	0383	34896	2774			14769								
		STD	0700	0380	3490	2775	0004242	0316	14774								
		STD	0800	0371	3490	2776	0004224	0358	14787								
		STD	0900	0362	3490	2776	0004210	0400	14800								
		OBS	0901	0362	34897	2776			14800								
		STD	1000	0360	3490	2777	0004260	0442	14816								
		STD	1100	0358	3490	2777	0004303	0485	14832								
		OBS	1126	0357	34900	2777			14836								
		STD	1200	0356	3490	2777	0004358	0528	14848								
		STD	1300	0354	3490	2778	0004400	0572	14864								
		STD	1400	0353	3491	2778	0004453	0617	14880								
		STD	1500	0353	3491	2778	0004518	0661	14897								
		OBS	T1729	0353	34911	2778			14936								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDICATOR	MARSDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.						10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE	
31	870	HU	5629 N	05057 W		186	60	01	15	144	1967	B22	009	3566	15	24	2	3	X1	8	4	0009	
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																
						23	S13	088	004	-020	7	14											

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C
		STD	0000	0363	3473	2763	0004720	0000	14649								
144		OBS	0000	0363	34726	2763			14649								
		STD	0010	0365	3473	2763	0004748	0005	14652								
		STD	0020	0367	3473	2762	0004783	0009	14654								
144		OBS	0025	0368	34725	2762			14656								
		STD	0030	0367	3473	2763	0004754	0014	14656								
144		OBS	0049	0364	34731	2763			14658								
		STD	0050	0364	3473	2763	0004736	0024	14658								
		STD	0075	0364	3474	2764	0004670	0036	14662								
144		OBS	0096	0363	34750	2765			14665								
		STD	0100	0363	3475	2765	0004629	0047	14666								
		STD	0125	0365	3475	2764	0004681	0059	14671								
144		OBS	0146	0366	34746	2764			14675								
		STD	0150	0371	3475	2764	0004750	0071	14678								
144		OBS	T0194	0412	34823	2765			14703								
		STD	0200	0418	3484	2766	0004604	0094	14707								
144		OBS	0243	0440	34907	2769			14724								
		STD	0250	0438	3490	2769	0004421	0117	14724								
144		OBS	0292	0428	34882	2768			14727								
		STD	0300	0426	3488	2768	0004492	0139	14727								
144		OBS	T0390	0404	34876	2770			14733								
		STD	0400	0403	3488	2771	0004371	0183	14734								
144		OBS	0487	0391	34876	2772			14744								
		STD	0500	0389	3488	2772	0004321	0227	14745								
144		OBS	0586	0378	34871	2773			14754								
		STD	0600	0378	3487	2773	0004314	0270	14757								
		STD	0700	0377	3488	2774	0004325	0313	14773								
144		OBS	0783	0375	34888	2774			14786								
		STD	0800	0374	3489	2775	0004312	0356	14789								
		STD	0900	0370	3490	2776	0004279	0399	14804								
144		OBS	T0984	0366	34903	2777			14816								
		STD	1000	0365	3490	2777	0004284	0442	14818								
		STD	1100	0362	3491	2777	0004318	0485	14834								
		STD	1200	0359	3491	2777	0004358	0528	14849								
		STD	1300	0356	3491	2778	0004388	0572	14865								
		STD	1400	0354	3491	2778	0004437	0616	14881								
		STD	1500	0352	3491	2779	0004476	0661	14897								
144		OBS	T1508	0352	34911	2779			14898								

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	DRIFT INDICATOR	MARSDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLER	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.						1/10	1/10	10"		1"	MO			DAY	HR./10	CRUISE NO.	STATION NUMBER		DIR.	HGT		PER
31	870	HU	5630 N	05102 W		186	61	01	18	137	1967	B22	010	3566	03	25	4	3		X7	7	7	0010
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																
						22	S14	064	-038	-062	6	08											

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C
		STD	0000	0384	3478	2765	0004522	0000	14659								
137		OBS	0000	0384	34779	2765			14659								
		STD	0010	0383	3478	2765	0004524	0005	14660								
		STD	0020	0382	3478	2765	0004518	0009	14662								
137		OBS	0025	0382	34780	2765			14662								
		STD	0030	0383	3478	2765	0004533	0014	14663								
137		OBS	0048	0385	34780	2765			14667								
		STD	0050	0385	3478	2765	0004572	0023	14668								
		STD	0075	0386	3478	2765	0004590	0034	14672								
137		OBS	0097	0387	34783	2765			14676								
		STD	0100	0387	3478	2765	0004641	0046	14677								
		STD	0125	0390	3478	2764	0004691	0057	14682								
137		OBS	0143	0392	34779	2764			14686								
		STD	0150	0393	3478	2764	0004748	0069	14688								
137		OBS	0195	0402	34811	2766			14699								
		STD	0200	0407	3482	2766	0004638	0093	14702								
137		OBS	0244	0442	34865	2766			14725								
		STD	0250	0446	3487	2765	0004733	0116	14727								
137		OBS	0285	0464	34926	2768			14741								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSQEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	870	HU	5633 N	05053 W		186	60	01	19	176	1967	822	011	3566	16	24	6	2		X1	9	2	0011

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		08	510		-005	-027	7	14	

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \text{at/l}$	TOTAL-P $\mu g - \text{at/l}$	NO ₂ -N $\mu g - \text{at/l}$	NO ₃ -N $\mu g - \text{at/l}$	SIO ₄ -Si $\mu g - \text{at/l}$	pH	S C
		STO	0000	0380	3479	2766	0004438	0000	14657								
176		OBS	0000	0380	34785	2766			14657								
		STO	0010	0380	3478	2766	0004451	0004	14659								
		STO	0020	0379	3478	2766	0004458	0009	14660								
176		OBS	0027	0379	34783	2766			14661								
		STO	0030	0379	3478	2766	0004473	0013	14662								
		STO	0050	0381	3479	2766	0004477	0022	14666								
176		OBS	0052	0381	34787	2766			14666								
		STO	0075	0387	3479	2765	0004539	0034	14673								
		STO	0100	0393	3479	2765	0004623	0045	14679								
176		OBS	0104	0394	34795	2765			14680								
		STO	0125	0399	3480	2765	0004632	0057	14686								
		STO	0150	0402	3480	2765	0004687	0068	14691								
176		OBS	0155	0403	34802	2765			14693								
		STO	0200	0404	3482	2766	0004635	0092	14701								
176		OBS	0206	0404	34818	2766			14702								
		STO	0250	0406	3482	2766	0004684	0115	14710								
176		OBS	0258	0408	34819	2766			14712								
		STO	0300	0427	3483	2764	0004906	0139	14727								
176		OBS	0310	0430	34828	2764			14730								
		STO	0400	0421	3482	2765	0004957	0188	14741								
176		OBS	0413		34823												
		STO	0500	0407	3488	2770	0004482	0235	14752								
176		OBS	0517	0404	34881	2771			14754								
		STO	0600	0387	3487	2772	0004428	0280	14760								
176		OBS	T0622	0383	34867	2772			14762								
		STO	0700	0379	3487	2773	0004422	0324	14774								
		STO	0800	0374	3488	2774	0004424	0368	14788								
176		OBS	0833	0373	34877	2774			14793								
		STO	0900	0370	3488	2774	0004442	0413	14803								
		STO	1000	0366	3488	2775	0004474	0457	14818								
176		OBS	T1046	0364	34879	2775			14825								
		STO	1100	0362	3488	2775	0004503	0502	14833								
		STO	1200	0359	3488	2775	0004549	0547	14849								
		STO	1300	0357	3489	2776	0004533	0593	14865								
		STO	1400	0355	3489	2777	0004589	0638	14881								
		STO	1500	0354	3490	2778	0004582	0684	14896								
176		OBS	T1601	0354	34904	2778			14915								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	ORIG INDIC	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	870	HU	5628 N	05103 W		186	61	01	21	133	1967	B22 012	3566	17	25	4	3		X7	7	8	0012
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		27	S15	017	-044	-054	4	14	
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SiO ₂ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	S CC
		STD	0000	0393	3481	2767	0004347	0000	14663								
133		OBS	0000	0393	34814	2767			14663								
		STD	0010	0393	3481	2766	0004384	0004	14665								
		STD	0020	0392	3481	2766	0004389	0009	14666								
133		OBS	0028	0392	34808	2766			14667								
		STD	0030	0392	3481	2766	0004398	0013	14668								
		STD	0050	0394	3481	2766	0004432	0022	14672								
133		OBS	0054	0394	34811	2766			14672								
		STD	0075	0394	3481	2766	0004447	0033	14676								
		STD	0100	0393	3481	2766	0004474	0044	14680								
133		OBS	0106	0393	34810	2766			14681								
		STD	0125	0394	3480	2766	0004553	0056	14684								
		STD	0150	0396	3480	2765	0004643	0067	14689								
133		OBS	0158	0396	34794	2765			14690								
		STD	0200	0397	3480	2765	0004682	0090	14698								
133		OBS	T0210	0397	34808	2766			14699								
		STD	0250	0409	3482	2766	0004708	0114	14711								
133		OBS	0263	0413	34830	2766			14715								
		STD	0300	0422	3486	2767	0004598	0137	14725								
133		OBS	0316	0425	34867	2768			14729								
		STD	0400	0412	3489	2771	0004335	0182	14738								
133		OBS	0418		34900												
		STD	0500	0397	3487	2771	0004446	0226	14748								
133		OBS	0522	0394	34869	2771			14750								
		STD	0600	0383	3486	2771	0004458	0270	14759								
133		OBS	T0624	0380	34859	2772			14761								
		STD	0700	0377	3486	2772	0004466	0315	14773								
		STD	0800	0374	3487	2773	0004498	0360	14788								
133		OBS	0842	0372	34867	2773			14794								
		STD	0900	0370	3487	2774	0004502	0405	14803								
		STD	1000	0366	3487	2774	0004540	0450	14818								
133		OBS	T1068	0364	34877	2775			14829								
		STD	1100	0363	3488	2775	0004515	0495	14834								
		STD	1200	0360	3488	2775	0004561	0540	14849								
		STD	1300	0358	3489	2776	0004545	0586	14865								
		STD	1400	0355	3489	2777	0004589	0632	14881								
		STD	1500	0353	3489	2777	0004643	0678	14897								
133		OBS	T1653	0351	34896	2777			14922								

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DRIFT INDICATOR	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
31	870	HU	5632 N	05100 W		186	61	01	22	176	1967	822	013	3566	14	24	4	3		X7	5	8	0013	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. IMI	DIR.	SPEED OF FORCE	METER (mbs)	DRY BULB	WET BULB												
								24	512	929	-073	-083	6	14										

MESSAGE TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C
		STD	0000	0394	3483	2768	0004206	0000	14664								
176		OBS	0000	0394	34834	2768			14664								
		STD	0010	0395	3483	2768	0004255	0004	14666								
		STD	0020	0396	3483	2768	0004272	0008	14668								
176		OBS	0023	0396	34825	2767			14668								
		STD	0030	0397	3483	2767	0004333	0013	14670								
176		OBS	0045	0399	34825	2767			14673								
		STD	0050	0399	3483	2767	0004372	0022	14674								
		STD	0075	0399	3483	2767	0004389	0032	14678								
176		OBS	0090	0399	34826	2767			14681								
		STD	0100	0400	3483	2767	0004420	0043	14683								
		STD	0125	0401	3483	2767	0004447	0055	14687								
176		OBS	0133	0402	34828	2767			14689								
		STD	0150	0402	3483	2767	0004466	0066	14692								
176		OBS	0177	0403	34833	2767			14697								
		STD	0200	0405	3483	2767	0004520	0088	14701								
176		OBS	0221	0406	34832	2767			14705								
		STD	0250	0407	3484	2767	0004575	0111	14711								
176		OBS	0266	0408	34836	2767			14714								
		STD	0300	0410	3486	2769	0004468	0133	14720								
176		OBS	0356		34886												
		STD	0400	0415	3489	2770	0004440	0178	14739								
176		OBS	0446	0418	34883	2770			14748								
		STD	0500	0410	3488	2770	0004501	0223	14754								
176		OBS	T0545	0403	34881	2771			14758								
		STD	0600	0391	3488	2772	0004436	0267	14762								
		STD	0700	0376	3487	2773	0004433	0312	14772								
176		OBS	0723	0374	34862	2772			14775								
		STD	0800	0373	3487	2773	0004449	0356	14788								
176		OBS	T0899	0371	34872	2774			14804								
		STD	0900	0371	3487	2774	0004498	0401	14804								
		STD	1000	0369	3488	2774	0004524	0446	14820								
		STD	1100	0366	3488	2775	0004536	0491	14835								
		STD	1200	0363	3489	2776	0004546	0537	14851								
		STD	1300	0360	3489	2776	0004555	0582	14866								
		STD	1400	0357	3490	2777	0004562	0628	14882								
176		OBS	T1421	0356	34898	2777			14885								

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DRIFT INDICATOR	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
31	870	HU	5630 N	050585W		186	60	01	23	130	1967	822	014	3566	04	34	4	3		X7	7	8	0014	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. IMI	DIR.	SPEED OF FORCE	METER (mbs)	DRY BULB	WET BULB												
								33	523	003	-045	-058	4	10										

MESSAGE TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C
		STD	0000	0387	3485	2770	0004055	0000	14661								
130		OBS	0000	0387	34845	2770			14661								
		STD	0010	0388	3484	2770	0004084	0004	14663								
		STD	0020	0388	3484	2769	0004121	0008	14665								
130		OBS	0021	0388	34840	2769			14665								
		STD	0030	0388	3484	2770	0004108	0012	14666								
130		OBS	0042	0388	34847	2770			14668								
		STD	0050	0388	3485	2770	0004097	0020	14670								
		STD	0075	0388	3485	2770	0004128	0031	14674								
130		OBS	0086	0388	34845	2770			14676								
		STD	0100	0389	3485	2770	0004167	0041	14678								
		STD	0125	0390	3484	2769	0004210	0052	14683								
130		OBS	0128	0390	34844	2769			14683								
		STD	0150	0390	3485	2770	0004212	0062	14687								
130		OBS	0169	0390	34849	2770			14690								
		STD	0200	0389	3485	2770	0004244	0083	14695								
130		OBS	0211	0388	34846	2770			14696								
		STD	0250	0390	3484	2769	0004343	0105	14703								
130		OBS	0252	0390	34842	2769			14704								
		STD	0300	0378	3482	2769	0004428	0127	14706								
130		OBS	T0326	0371	34816	2769			14708								
130		OBS	0398	0406	34868	2770			14735								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCH	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

31	870	HU	5630 N	05104 W	186	61	01	25	164	1967	822	015	3566	34	30	4	3		X2	6	8	0015
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		33	S13	064	023	017	6	17	
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MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DTN. M. $\times 10^3$	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₂ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	SiO ₄ -Si $\mu g - ml/l$	pH	σ_c
		STD	0000	0395	3484	2769	0004171	0000	14664								
133	OBS	0000	0395	34840	2769				14664								
	STD	0010	0394	3483	2768	0004219	0004	14666									
	STD	0020	0394	3483	2768	0004266	0008	14667									
133	OBS	0027	0393	34824	2768				14668								
	STD	0030	0393	3483	2768	0004257	0013	14668									
	STD	0050	0395	3484	2769	0004217	0021	14673									
133	OBS	0053	0395	34845	2769				14673								
	STD	0075	0396	3485	2769	0004211	0032	14677									
	STD	0100	0398	3485	2769	0004243	0042	14682									
133	OBS	0104	0398	34847	2769				14683								
	STD	0125	0399	3485	2769	0004274	0053	14687									
	STD	0150	0401	3485	2769	0004306	0064	14692									
133	OBS	0156	0401	34849	2769				14693								
	STD	0200	0399	3485	2769	0004355	0085	14699									
133	OBS	T0208	0398	34845	2769				14700								
	STD	0250	0396	3485	2769	0004365	0107	14706									
133	OBS	0258	0396	34849	2769				14707								
	STD	0300	0393	3485	2769	0004397	0129	14713									
133	OBS	0306	0393	34846	2769				14714								
	STD	0400	0399	3487	2771	0004367	0173	14732									
	STD	0500	0404	3488	2771	0004453	0217	14751									
133	OBS	0510	0405	34884	2771				14753								
	STD	0600	0392	3488	2772	0004410	0261	14763									
133	OBS	0612	0390	34876	2772				14764								
	STD	0700	0380	3487	2773	0004433	0305	14774									
	STD	0800	0372	3487	2773	0004468	0350	14787									
133	OBS	0821	0370	34865	2773				14790								
	STD	0900	0365	3487	2774	0004444	0395	14801									
	STD	1000	0360	3488	2775	0004396	0439	14816									
133	OBS	T1031	0359	34885	2776				14821								
	STD	1100	0358	3489	2776	0004381	0483	14832									
	STD	1200	0357	3489	2776	0004451	0527	14848									
	STD	1300	0356	3489	2777	0004520	0572	14865									
	STD	1400	0355	3489	2777	0004589	0617	14881									
	STD	1500	0353	3489	2777	0004643	0663	14897									
133	OBS	T1585	0352	34896	2777				14911								
	STD	1750	0352	3491	2779	0004680	0780	14939									
	STD	2000	0348	3492	2780	0004746	0898	14980									
164	OBS	T2200	0340	34932	2781				15011								
	STD	2500	0322	3494	2783	0004630	1132	15055									
164	OBS	T2781	0298	34937	2786				15093								
	STD	3000	0287	3493	2786	0004465	1359	15126									
164	OBS	T3350	0226	34919	2791				15161								
164	OBS	3396	0214	34904	2790				15164								

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	TIME INDEX	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			OIL	HGT	PER	SEA		TYPE	AMT	
31	870	HU	5634 N	05101 W		186	61	01	26	134	1967	B22	016	3566	13	33	3	2		X1	3	6	0016
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
								35		S14	115	027	017	7	14								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C C					
		STD	0000	0374	3482	2769	0004132		0000	14655													
134		OBS	0000	0374	34818	2769				14655													
		STD	0010	0373	3482	2769	0004130		0004	14656													
		STD	0020	0372	3482	2769	0004126		0008	14657													
134		OBS	0024	0371	34818	2769				14658													
		STD	0030	0371	3482	2769	0004133		0012	14659													
134		OBS	0048	0372	34817	2769				14662													
		STD	0050	0372	3482	2769	0004166		0021	14663													
		STD	0075	0372	3481	2769	0004211		0031	14667													
134		OBS	0095	0372	34812	2769				14670													
		STD	0100	0373	3481	2769	0004251		0042	14671													
		STD	0125	0376	3482	2769	0004251		0052	14677													
134		OBS	0143	0377	34824	2769				14680													
		STD	0150	0377	3483	2769	0004246		0063	14681													
134		OBS	T0190	0375	34828	2770				14687													
		STD	0200	0375	3483	2770	0004259		0084	14689													
134		OBS	0235	0376	34821	2769				14695													
		STD	0250	0377	3482	2769	0004375		0106	14698													
134		OBS	0278	0379	34819	2769				14703													
		STD	0300	0378	3482	2769	0004434		0128	14706													
134		OBS	T0365	0376	34830	2770				14716													
		STD	0400	0385	3484	2770	0004446		0172	14726													
134		OBS	0455	0393	34858	2770				14739													
		STD	0500	0392	3486	2770	0004465		0217	14746													
134		OBS	0543	0390	34868	2771				14752													
		STD	0600	0382	3487	2772	0004395		0261	14758													
		STD	0700	0372	3486	2773	0004395		0305	14771													
134		OBS	0723	0370	34863	2773				14774													
		STD	0800	0367	3487	2774	0004382		0349	14785													
		STD	0900	0363	3488	2775	0004349		0393	14801													
134		OBS	T0906	0363	34884	2775				14801													
		STD	1000	0360	3489	2776	0004351		0436	14816													
		STD	1100	0358	3489	2776	0004389		0480	14832													
		STD	1200	0356	3489	2777	0004432		0524	14848													
		STD	1300	0355	3489	2777	0004479		0568	14864													
134		OBS	1348	0355	34895	2777				14872													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10°	1°	MD DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	
31	870	HU	56265N	05059 W	186	60	01	28 130	1967	822	017	3566	15	07	2	2		X2	318	0017

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VEL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		23	S02	149	032	017	7	14	

MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \sigma t/l$	TOTAL-P $\mu g - \sigma t/l$	NO ₃ -N $\mu g - \sigma t/l$	NO ₃ -N $\mu g - \sigma t/l$	SiO ₄ -Si $\mu g - \sigma t/l$	pH	S CTD
		STD	0000	0378	3482	2769	0004125	0000	14657								
130		OBS	0000	0378	34824	2769			14657								
		STD	0010	0377	3482	2769	0004157	0004	14658								
		STD	0020	0376	3482	2769	0004159	0008	14660								
130		OBS	0025	0376	34819	2769			14660								
		STD	0030	0376	3482	2769	0004175	0012	14661								
		STD	0050	0378	3482	2769	0004208	0021	14665								
130		OBS	0052	0378	34819	2769			14665								
		STD	0075	0383	3483	2769	0004200	0031	14672								
		STD	0100	0389	3484	2769	0004203	0042	14678								
130		OBS	0102	0389	34844	2770			14679								
		STD	0125	0393	3485	2770	0004200	0052	14684								
		STD	0150	0398	3485	2769	0004273	0063	14691								
130		OBS	0154	0399	34854	2769			14692								
		STD	0200	0400	3485	2769	0004317	0084	14700								
130		OBS	T0206	0400	34853	2769			14701								
		STD	0250	0401	3486	2770	0004293	0106	14708								
130		OBS	0256	0401	34865	2770			14709								
		STD	0300	0389	3485	2770	0004321	0127	14711								
130		OBS	0307	0387	34847	2770			14712								
		STD	0400	0379	3484	2770	0004378	0171	14723								
130		OBS	T0406	0378	34837	2770			14724								
		STD	0500	0372	3482	2769	0004534	0216	14737								
130		OBS	0507	0371	34820	2769			14738								
		STD	0600	0390	3486	2771	0004536	0261	14762								
130		OBS	0609	0391	34865	2771			14764								
		STD	0700	0382	3487	2772	0004500	0306	14775								
		STD	0800	0374	3486	2773	0004505	0351	14788								
130		OBS	0812	0373	34864	2773			14790								
		STD	0900	0370	3487	2774	0004502	0396	14803								
		STD	1000	0367	3488	2775	0004478	0441	14819								
130		OBS	T1016	0366	34883	2775			14821								
		STD	1100	0363	3489	2776	0004441	0486	14834								
		STD	1200	0361	3489	2776	0004500	0530	14850								
		STD	1300	0358	3489	2776	0004545	0576	14865								
		STD	1400	0356	3489	2777	0004601	0621	14881								
		STD	1500	0354	3489	2777	0004656	0668	14897								
130		OBS	T1517	0354	34890	2777			14900								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR, 1/10				CRUISE NO.	STATION NUMBER		DIR.	HGT		PER	SEA
31	870	HU	56305N	05059 W	186	60	01	29	126	1967	B22	018	3500	16	08	4	3		X2	3	8	0018
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB										
								10		517	135	028	018	7	14							
MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CC					
		STO	0000	0391	3485	2769	0004094	0000	14663													
126		OBS	0000	0391	34845	2769			14663													
		STO	0010	0391	3484	2769	0004115	0004	14664													
		STO	0020	0390	3484	2769	0004136	0008	14666													
126		OBS	0027	0390	34840	2769			14667													
		STO	0030	0390	3484	2769	0004152	0012	14667													
		STO	0050	0392	3484	2769	0004187	0021	14671													
126		OBS	0053	0392	34837	2769			14672													
		STO	0075	0392	3484	2769	0004236	0031	14675													
		STO	0100	0392	3484	2769	0004267	0042	14680													
126		OBS	0106	0392	34836	2769			14681													
		STO	0125	0392	3484	2769	0004261	0053	14684													
		STO	0150	0392	3484	2769	0004285	0063	14688													
126		OBS	0161	0392	34841	2769			14690													
		STO	0200	0392	3484	2769	0004310	0085	14696													
126		OBS	T0214	0392	34844	2769			14698													
		STO	0250	0388	3484	2769	0004338	0106	14703													
126		OBS	0265	0386	34836	2769			14704													
		STO	0300	0382	3483	2769	0004398	0128	14708													
126		OBS	0318	0380	34829	2769			14710													
		STO	0400	0379	3482	2769	0004497	0173	14723													
126		OBS	0424	0378	34822	2769			14727													
		STO	0500	0379	3483	2769	0004552	0218	14740													
126		OBS	0530	0380	34833	2770			14745													
126		OBS	T0635	0380	34873	2773			14763													
		STO	0700	0379	3488	2773	0004392	0307	14774													
		STO	0800	0375	3488	2774	0004413	0351	14789													
126		OBS	0853	0373	34879	2774			14797													
		STO	0900	0369	3488	2774	0004416	0395	14803													
		STO	1000	0362	3488	2775	0004419	0439	14817													
126		OBS	T1066	0358	34881	2776			14826													
		STO	1100	0358	3488	2776	0004435	0483	14832													
		STO	1200	0356	3488	2776	0004488	0528	14848													
		STO	1300	0355	3489	2776	0004539	0573	14864													
		STO	1400	0354	3489	2776	0004597	0619	14881													
		STO	1500	0353	3489	2777	0004647	0665	14897													
126		OBS	T1637	0351	34892	2777			14919													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	QUALITY INDEX	MARS SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- TNER CODE	CLOUD CODES		NODC STATION NUMBER		
CRTR CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT			
31	870	HU	5631 N	05033 W		186	60	01	30	178	1967	822	019		3566	17	08	5	6		X6	5	8		0019
						WATER		WIND		BARO- METER		AIR TEMP. °C													
						COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		DRY RUL		WET RUL		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
								10		S25		865		031		031		6		13					

MESSNGR	CAS	CARD	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME	Σ Δ D	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₃ -N	NO ₃ -N	SiO ₄ -Si	pH	S
TIME	NO.	TYPE					ANOMALY-STD	DYN. M.	VELOCITY		μg - at/l	μg - at/l	μg - at/l	μg - at/l	μg - at/l		C
HR 1/10								x 10 ³									
		STD	0000	0351	3475	2766	0004411	0000	14645								
178		OBS	0000	0351	34752	2766			14645								
		STD	0010	0351	3475	2766	0004427	0004	14646								
		STD	0020	0351	3475	2766	0004436	0009	14648								
178		OBS	0027	0351	34750	2766			14649								
		STD	0030	0351	3475	2766	0004451	0013	14649								
		STD	0050	0350	3475	2766	0004462	0022	14652								
178		OBS	0054	0350	34750	2766			14653								
		STD	0075	0351	3476	2767	0004413	0033	14657								
		STD	0100	0352	3476	2767	0004443	0044	14661								
178		OBS	0107	0352	34764	2767			14663								
		STD	0125	0357	3477	2767	0004440	0055	14668								
		STD	0150	0363	3477	2766	0004521	0067	14675								
178		OBS	0165	0366	34778	2767			14678								
		STD	0200	0370	3479	2767	0004484	0089	14686								
178		OBS	T0222	0372	34791	2767			14691								
		STD	0250	0373	3480	2768	0004484	0112	14696								
178		OBS	0275	0378	34810	2768			14702								
		STD	0300	0393	3483	2768	0004512	0134	14713								
178		OBS	0332	0407	34861	2769			14724								
		STD	0400	0396	3486	2770	0004400	0179	14731								
		STD	0500	0385	3486	2771	0004367	0222	14743								
178		OBS	0553	0381	34863	2772			14750								
		STD	0600	0380	3487	2773	0004351	0266	14758								
178		OBS	T0663	0378	34880	2774			14767								
		STD	0700	0377	3488	2774	0004317	0309	14773								
		STD	0800	0374	3489	2774	0004342	0353	14788								
178		OBS	0884	0371	34889	2775			14801								
		STD	0900	0370	3489	2775	0004353	0396	14804								
		STD	1000	0364	3489	2776	0004369	0440	14818								
		STD	1100	0359	3489	2776	0004393	0484	14832								
178		OBS	T1113	0358	34892	2776			14834								
		STD	1200	0357	3489	2777	0004424	0528	14848								
		STD	1300	0356	3490	2777	0004471	0572	14865								
		STD	1400	0355	3490	2777	0004516	0617	14881								
		STD	1500	0354	3490	2778	0004570	0663	14898								
178		OBS	T1720	0352	34908	2778			14934								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDICATOR	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOO STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
31	870	HU	5629 N	05111 W		186	61	01	31	122		1967	B22	020	3566	15	06	4	2		X5	5	8	0020	
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS.		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	METER (mbs)		DRY BULB	WET BULB																
					06	510	861	023	020	6	14														
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME AND MALT-107		Σ Δ D DYN. M. X 10 ³		SOUND VELOCITY		O ₂ mL/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CLOUD				
		STD	0000	0387	3482	2768		0004235		0000		14661													
122	OBS	0000	0387	34821	2768				0004248		0004		14662												
	STD	0010	0387	3482	2768				0004254		0008		14664												
	STD	0020	0386	3482	2768								14664												
122	OBS	0024	0386	34817	2768								14664												
	STD	0030	0386	3482	2768				0004278		0013		14665												
122	OBS	0048	0387	34820	2768								14669												
	STD	0050	0387	3482	2768				0004283		0021		14669												
	STD	0075	0387	3483	2769				0004246		0032		14673												
122	OBS	0095	0387	34836	2769								14677												
	STD	0100	0387	3484	2769				0004220		0043		14678												
	STD	0125	0389	3484	2769				0004237		0053		14682												
122	OBS	0142	0390	34840	2769								14686												
	STD	0150	0396	3485	2769				0004251		0064		14690												
122	OBS	T0192	0403	34862	2769								14700												
	STD	0200	0395	3485	2769				0004288		0085		14697												
122	OBS	0236	0371	34813	2769								14693												
	STD	0250	0369	3481	2769				0004339		0107		14694												
122	OBS	0283	0365	34816	2770								14698												
	STD	0300	0365	3482	2770				0004327		0128		14701												
122	OBS	0378	0365	34814	2770								14714												
	STD	0400	0366	3482	2770				0004428		0172		14718												
122	OBS	0471	0367	34817	2770								14730												
	STD	0500	0375	3484	2771				0004430		0216		14738												
122	OBS	T0566	0386	34868	2772								14754												
	STD	0600	0382	3487	2772				0004395		0261		14758												
	STD	0700	0372	3487	2773				0004388		0304		14771												
122	OBS	0757	0368	34863	2773								14778												
	STD	0800	0368	3487	2774				0004392		0348		14786												
	STD	0900	0367	3488	2775				0004393		0392		14802												
122	OBS	0952	0366	34885	2775								14810												
	STD	1000	0365	3489	2775				0004417		0436		14818												
	STD	1100	0363	3489	2776				0004470		0481		14834												
	STD	1200	0361	3489	2776				0004522		0526		14850												
	STD	1300	0358	3489	2776				0004560		0571		14865												
	STD	1400	0355	3489	2777				0004596		0617		14881												
122	OBS	T1454	0353	34889	2777								14889												

Table IV. Observed and interpolated oceanographic data for stations taken by USCGC BIBB at Ocean Station BRAVO, 24 February-14 March 1967, prepared from NODC listing No. 31-875 BX.

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH FOOT	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
31	875	BX	5632 N	05104 W		186	61	02	24	136	1967	823	001	3547	15	04	2	2		X	6	18	0001
						WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
								08	S20	091	028	017	7	14									
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₂ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₂ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S CC						
		STD	0000	0346	3480	2770	0004026	0000	14643														
136		OBS	0000	0346	34797	2770			14643														
		STD	0010	0346	3480	2770	0004046	0004	14645														
		STD	0020	0345	3479	2770	0004065	0008	14646														
136		OBS	0025	0345	34792	2770			14647														
		STD	0030	0345	3479	2770	0004076	0012	14648														
		STD	0050	0347	3480	2770	0004092	0020	14652														
136		OBS	0052	0347	34795	2770			14652														
		STD	0075	0347	3479	2770	0004129	0031	14656														
		STD	0100	0347	3479	2769	0004173	0041	14660														
136		OBS	0103	0347	34790	2769			14660														
		STD	0125	0347	3479	2770	0004186	0051	14664														
		STD	0150	0347	3479	2770	0004192	0062	14668														
136		OBS	0155	0347	34793	2770			14669														
		STD	0200	0347	3479	2770	0004227	0083	14676														
136		OBS	T0207	0347	34794	2770			14678														
		STD	0250	0349	3480	2770	0004248	0104	14685														
136		OBS	0258	0349	34800	2770			14687														
		STD	0300	0348	3480	2770	0004263	0125	14693														
136		OBS	0310	0348	34802	2770			14695														
		STD	0400	0349	3481	2771	0004301	0168	14710														
136		OBS	T0409	0349	34810	2771			14712														
		STD	0500	0348	3481	2771	0004383	0212	14727														
136		OBS	0514	0348	34807	2771			14729														
		STD	0600	0383	3487	2772	0004384	0255	14759														
136		OBS	T0618	0388	34876	2772			14764														
		STD	0700	0385	3489	2774	0004348	0299	14777														
		STD	0800	0380	3489	2774	0004381	0343	14791														
136		OBS	0824	0379	34895	2775			14795														
		STD	0900	0372	3490	2775	0004340	0386	14804														
		STD	1000	0365	3490	2776	0004344	0430	14818														
136		OBS	T1030	0363	34895	2776			14822														
		STD	1100	0362	3490	2777	0004350	0473	14834														
		STD	1200	0360	3490	2777	0004410	0517	14850														
		STD	1300	0358	3490	2777	0004468	0561	14869														
		STD	1400	0356	3490	2777	0004524	0606	14881														
		STD	1500	0354	3490	2778	0004580	0652	14898														
136		OBS	T1539	0353	34906	2778			14904														

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DEPTH INCHES	MARSGEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDBC STATION NUMBER					
CITY CODE	IO. NO.					10*	1*	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT						
31	875	BX	5626 N	05056 W	186	60	02	26	131	1967	B22	002	3567	13	00	3	2		X1	6	6	0002						
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS													
						COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																
								08 <td>S10</td> <td>152</td> <td>011</td> <td>011</td> <td>7</td> <td>14</td> <th colspan="14"></th>	S10	152	011	011	7	14														
MESSNGR TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	1 CC										
		STD	0000	0351	3479	2769	0004103		0000	14645																		
131		OBS	0000	0351	34793	2769				14645																		
		STD	0010	0351	3479	2769	0004107		0004	14647																		
		STD	0020	0350	3479	2769	0004111		0008	14648																		
131		OBS	0022	0350	34793	2769				14648																		
		STD	0030	0351	3479	2769	0004136		0012	14650																		
131		OBS	0045	0352	34790	2769				14653																		
		STD	0050	0352	3479	2769	0004176		0021	14654																		
		STD	0075	0351	3479	2769	0004163		0031	14657																		
131		OBS	0089	0350	34794	2769				14659																		
		STD	0100	0350	3479	2769	0004173		0041	14661																		
		STD	0125	0351	3480	2770	0004185		0052	14666																		
131		OBS	0134	0351	34796	2770				14667																		
		STD	0150	0351	3480	2769	0004220		0062	14670																		
131		OBS	T0178	0352	34792	2769				14675																		
		STD	0200	0353	3479	2769	0004293		0084	14679																		
131		OBS	0220	0354	34794	2769				14683																		
		STD	0250	0354	3480	2770	0004293		0105	14688																		
131		OBS	0263	0354	34802	2770				14690																		
		STD	0300	0356	3480	2770	0004324		0127	14697																		
131		OBS	T0344	0358	34807	2770				14705																		
		STD	0400	0369	3486	2771	0004340		0170	14728																		
131		OBS	0429	0397	34876	2771				14736																		
		STD	0500	0393	3488	2772	0004365		0214	14747																		
131		OBS	T0513	0392	34875	2772				14748																		
		STD	0600	0383	3488	2773	0004324		0257	14759																		
131		OBS	0681	0377	34880	2774				14770																		
		STD	0700	0376	3488	2774	0004314		0300	14773																		
		STD	0800	0371	3489	2775	0004293		0343	14787																		
131		OBS	T0855	0369	34892	2775				14796																		
		STD	0900	0367	3489	2776	0004304		0386	14802																		
		STD	1000	0364	3489	2776	0004339		0429	14818																		
		STD	1100	0361	3490	2776	0004380		0473	14833																		
		STD	1200	0359	3490	2777	0004431		0517	14849																		
		STD	1300	0357	3490	2777	0004481		0562	14865																		
131		OBS	T1314	0357	34897	2777				14867																		

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	MARSOEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
31	875	BX	5632 N	05105 W	186	61	03	01	132	1967	B23	003	3567	14	33	1	2			X2	7	8	0003	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	CIR.	SPEED OR FORCE		DRY BULB	WET BULB												
								17	517	946	-011	-011	7	14										
MESSAGE TIME OF HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S C							
		STD	0000	0348	3481	2771	0003969	0000	14644															
132		OBS	0000	0348	34807	2771			14644															
		STD	0010	0348	3481	2771	0003959	0004	14646															
		STD	0020	0349	3481	2771	0003972	0008	14648															
132		OBS	0023	0349	34812	2771			14648															
		STD	0030	0349	3481	2771	0003966	0012	14649															
132		OBS	0048	0349	34810	2771			14652															
		STD	0050	0349	3481	2771	0003999	0020	14653															
		STD	0075	0347	3481	2771	0004001	0030	14656															
132		OBS	0095	0346	34804	2771			14659															
		STD	0100	0346	3480	2771	0004057	0040	14660															
		STD	0125	0345	3481	2771	0004066	0050	14663															
132		OBS	0143	0345	34806	2771			14666															
		STD	0150	0345	3481	2771	0004078	0060	14668															
132		OBS	T0195	0347	34809	2771			14676															
		STD	0200	0347	3481	2771	0004115	0081	14677															
132		OBS	0240	0348	34808	2771			14684															
		STL	0250	0347	3481	2771	0004164	0101	14685															
132		OBS	0288	0345	34806	2771			14690															
		STD	0300	0348	3481	2771	0004201	0122	14694															
132		OBS	T0382	0365	34841	2772			14715															
		STD	0400	0369	3485	2772	0004203	0164	14719															
132		OBS	0477	0378	34864	2772			14736															
		STD	0500	0376	3487	2773	0004254	0207	14739															
132		OBS	T0574	0372	34868	2773			14750															
		STD	0600	0372	3487	2773	0004266	0249	14754															
		STD	0700	0373	3489	2775	0004216	0292	14772															
132		OBS	0762	0374	34897	2775			14782															
		STD	0800	0371	3490	2776	0004226	0334	14787															
		STD	0900	0365	3490	2776	0004236	0376	14802															
132		OBS	T0950	0362	34898	2777			14809															
		STD	1000	0361	3490	2777	0004261	0419	14817															
		STD	1100	0359	3490	2777	0004323	0462	14833															
		STD	1200	0358	3490	2777	0004384	0505	14849															
		STD	1300	0356	3490	2777	0004443	0549	14865															
		STD	1400	0354	3490	2778	0004501	0594	14881															
132		OBS	T1447	0353	34903	2778			14888															

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DEPT INCHES	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
31	875	8X	5631 N	05106 W		186	61	03	03	133	1967	823	004	3547	16	33	4	2		X8	6	4	0004	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	ND. DRS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbars)	DRY BULB	WET BULB												
								32	525	926	-006	-011	4	14										
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?		Σ Δ D DTN. ML. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SIO ₄ -Si μg - ml/l	pH	S C C						
		STD	0000	0341																				
133		OBS	0000	0341																				
		STD	0010	0341																				
		STD	0020	0341																				
133		OBS	0026	0341																				
		STD	0030	0341																				
		STD	0050	0343																				
133		OBS	0052	0343																				
		STD	0075	0343																				
		STD	0100	0344																				
133		OBS	0104	0344																				
		STD	0125	0345																				
		STD	0150	0347																				
133		OBS	0155	0347																				
		STD	0200	0348																				
133		OBS	T0210	0349																				
		STD	0250	0356																				
133		OBS	0260	0358																				
		STD	0300	0365																				
133		OBS	0312	0366																				
		STD	0400	0369																				
133		OBS	T0417	0370																				
		STD	0500	0355																				
133		OBS	0520	0353																				
		STD	0600	0354																				
133		OBS	T0624	0354																				
		STD	0700	0364																				
		STD	0800	0370																				
133		OBS	0836	0371																				
		STD	0900	0366																				
		STD	1000	0359																				
133		OBS	T1045	0357																				
		STD	1100	0356																				
		STD	1200	0355																				
		STD	1300	0353																				
		STD	1400	0352																				
		STD	1500	0350																				
133		OBS	T1580	0349																				

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	SQUID INCHES	MARS DEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER				
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA	TYPE		AMT						
31	875	8X	5627 N	05057 W		186	60	03	05	169	1967	823	005		3567	35	25	3	3		X2	5	8		0005			
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS												
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
												24	526	895	000	-006	3	19										
MESSAGE TIME OF HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-30°	Σ Δ D DYH. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -H μg - ml/l	SiO ₄ -Si μg - ml/l	pH	SEC											
		STD	0000	0352	3483	2772	0003833	0000	14646																			
135		OBS	0000	0352	34830	2772			14646																			
		STD	0010	0352	3483	2772	0003839	0004	14648																			
		STD	0020	0351	3483	2772	0003844	0008	14649																			
		STD	0030	0351	3483	2772	0003890	0012	14651																			
135		OBS	0030	0351	34826	2772			14651																			
		STD	0050	0353	3483	2772	0003905	0019	14655																			
135		OBS	0055	0354	34828	2772			14656																			
		STD	0075	0354	3483	2772	0003922	0029	14659																			
		STD	0100	0353	3483	2772	0003940	0039	14663																			
135		OBS	0119	0353	34830	2772			14666																			
		STD	0125	0353	3483	2772	0003946	0049	14667																			
		STD	0150	0355	3483	2772	0003965	0059	14672																			
135		OBS	0178	0356	34835	2772			14677																			
		STD	0200	0358	3484	2772	0003990	0079	14682																			
135		OBS	T0239	0362	34845	2772			14690																			
		STD	0250	0363	3485	2772	0004038	0099	14692																			
135		OBS	0297	0366	34849	2772			14701																			
		STD	0300	0366	3485	2772	0004090	0119	14702																			
135		OBS	0357	0362	34843	2772			14709																			
		STD	0400	0372	3487	2773	0004085	0160	14721																			
135		OBS	T0476	0382	34893	2774			14738																			
		STD	0500	0381	3489	2774	0004122	0201	14742																			
		STD	0600	0378	3489	2774	0004209	0243	14757																			
135		OBS	0600	0378	34886	2774			14757																			
		STD	0700	0378	3490	2775	0004165	0284	14774																			
135		OBS	T0723	0377	34908	2776			14777																			
		STD	0800	0372	3491	2776	0004171	0326	14788																			
		STD	0900	0366	3490	2776	0004218	0368	14802																			
135		OBS	0975	0362	34900	2777			14813																			
		STD	1000	0361	3490	2777	0004257	0410	14817																			
		STD	1100	0359	3490	2777	0004291	0453	14833																			
		STD	1200	0357	3491	2778	0004324	0496	14848																			
		STD	1300	0355	3491	2778	0004362	0540	14864																			
135		OBS	T1321	0354	34910	2778			14868																			
		STD	1400	0354	3491	2779	0004402	0583	14881																			
		STD	1500	0353	3492	2779	0004453	0628	14897																			
		STD	1750	0352	3493	2780	0004565	0740	14939																			
135		OBS	T1853	0351	34929	2780			14956																			
		STD	2000	0345	3494	2781	0004594	0855	14979																			
169		OBS	T2010	0345	34936	2781			14981																			
		STD	2500	0316	3493	2784	0004580	1084	15052																			
169		OBS	T2525	0314	34929	2784			15056																			
		STD	3000	0274	3493	2787	0004269	1306	15121																			
169		OBS	T3024	0271	34934	2788			15124																			
169		OBS	T3456	0218	34911	2791			15176																			
169		OBS	3545	0188	34907	2793			15179																			

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDICATOR	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S		WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.		STATION NUMBER	DIR	HGT	PER	SEA		TYPE	AMT		
31	875	BX	5626 N	05057 W		186	60	03	07	131	1967	823 006	3475	14	27	4	3		X8	6	6	0006	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	(mbars)		DRY BULB	WET BULB										
									27	525	963	-027	-027	6	14								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ OBS. μ $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₂ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S C C				
		STD	0000	0342	3482	2773		0003785		0000	14642												
	131	OBS	0000	0342	34824	2773					14642												
		STD	0010	0344	3482	2772		0003615		0004	14644												
		STD	0020	0347	3483	2772		0003637		0008	14647												
	131	OBS	0022	0347	34825	2772					14647												
		STD	0030	0347	3483	2772		0003654		0011	14649												
	131	OBS	0043	0348	34825	2772					14651												
		STD	0050	0348	3483	2772		0003667		0019	14652												
		STD	0075	0347	3483	2772		0003668		0029	14656												
	131	OBS	0086	0347	34829	2773					14658												
		STD	0100	0348	3483	2772		0003686		0039	14661												
		STD	0125	0349	3483	2772		0003926		0046	14665												
	131	OBS	0128	0349	34828	2772					14666												
		STD	0150	0348	3483	2772		0003939		0058	14669												
	131	OBS	T0172	0347	34828	2772					14672												
		STD	0200	0346	3483	2772		0003971		0076	14677												
	131	OBS	0214	0348	34829	2772					14680												
		STD	0250	0350	3483	2772		0004048		0098	14688												
	131	OBS	0257	0350	34826	2772					14687												
		STD	0300	0350	3483	2772		0004071		0118	14695												
	131	OBS	T0341	0350	34832	2773					14701												
		STD	0400	0351	3483	2772		0004155		0159	14712												
	131	OBS	0426	0352	34832	2772					14716												
		STD	0500	0351	3483	2772		0004229		0201	14728												
	131	OBS	0513	0351	34833	2772					14730												
		STD	0600	0368	3487	2774		0004219		0244	14752												
	131	OBS	0693	0376	34890	2775					14772												
		STD	0700	0375	3489	2775		0004236		0286	14772												
		STD	0800	0369	3489	2776		0004226		0328	14786												
	131	OBS	0877	0364	34897	2776					14797												
		STD	0900	0363	3490	2777		0004198		0370	14801												
		STD	1000	0358	3490	2777		0004224		0412	14815												
		STD	1100	0355	3490	2777		0004272		0455	14831												
		STD	1200	0353	3490	2778		0004329		0498	14847												
		STD	1300	0352	3490	2778		0004398		0541	14863												
	131	OBS	T1358	0352	34904	2778					14873												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUAD	STATION TIME IGMT				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER				
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT			
31	875	BX	5632 N	05102 W	186 61	03	10	139	1967	823	007		3567	13	25	5	4		X8	6	8		0007			
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB														
								23	S26	942	-067	-078	4	14												
MESSENGR TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. MA. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	$\frac{1}{2}$ C									
		STD	0000	0344																						
	139	OBS	0000	0344																						
		STD	0010	0351																						
		STD	0020	0358																						
	139	OBS	0022	0359																						
		STD	0030	0354																						
	139	OBS	0046	0346																						
		STD	0050	0346																						
		STD	0075	0346																						
	139	OBS	0091	0346																						
		STD	0100	0347																						
		STD	0125	0348																						
		STD	0150	0349																						
	139	OBS	0185	0351																						
		STD	0200	0355																						
		STD	0250	0364																						
	139	OBS	0278	0367																						
		STD	0300	0367																						
	139	OBS	T0370	0367																						
		STD	0400	0368																						
	139	OBS	0462	0369																						
		STD	0500	0366																						
	139	OBS	T0548	0363																						
		STD	0600	0364																						
		STD	0700	0365																						
	139	OBS	0734	0365																						
		STD	0800	0364																						
		STD	0900	0363																						
	139	OBS	T0926	0363																						
		STD	1000	0362																						
		STD	1100	0360																						
		STD	1200	0357																						
		STD	1300	0354																						
	139	OBS	T1343	0352																						

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MARS SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE	
31	875	BX	56265N	050268W	186	60	03	12	141	1967	823	008	3613	15	31	4	2		X4	6	6	0008
WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS													
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																
			30	520	078	-039	-050	6	14													
MESSNGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	NO ₂ -N $\mu g - ml/l$	SiO ₄ -Si $\mu g - ml/l$	pH	S C					
		STD	0000	0341	3483	2773	0003723	0000	14641													
141		OBS	0000	0341	34831	2773			14641													
		STD	0010	0341	3483	2773	0003754	0004	14643													
		STD	0020	0341	3482	2773	0003793	0008	14645													
141		OBS	0026	0341	34822	2773			14646													
		STD	0030	0341	3482	2773	0003817	0011	14646													
		STD	0050	0342	3482	2773	0003834	0019	14650													
141		OBS	0053	0342	34823	2773			14650													
		STD	0075	0343																		
		STD	0100	0345																		
141		OBS	0106	0345																		
		STD	0125	0346																		
		STD	0150	0347																		
141		OBS	0159	0347																		
		STD	0200	0346																		
141		OBS	0212	0346																		
		STD	0250	0345																		
141		OBS	0265	0344																		
		STD	0300	0343																		
141		OBS	0316	0342																		
		STD	0400	0343																		
141		OBS	T0423	0343																		
		STD	0500	0345																		
141		OBS	0511	0345																		
		STD	0600	0346																		
141		OBS	T0607	0346																		
		STD	0700	0346																		
		STD	0800	0345																		
141		OBS	0806	0345																		
		STD	0900	0355																		
141		OBS	T0995	0363																		
		STD	1000	0363																		
		STD	1100	0361																		
		STD	1200	0359																		
		STD	1300	0356																		
		STD	1400	0354																		
141		OBS	T1499	0352																		

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DATE MO DAY	MARS SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	875	BX	5631 N	05100 W	186	61	03	14	122	1967	823	009	3567	15	24	2	2			X2	7	8		0009
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTH		SPECIAL OBSERVATIONS								
						COLOR CODE	TRANSL (m)	DIR.	SPEED OF FORCE	DRY BULB		WET BULB		VIS. CODE										
								22	521	081		-061		-061	6	14								

MESSENGER TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \rho$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g \cdot dl/l$	TOTAL-P $\mu g \cdot dl/l$	NO ₃ -N $\mu g \cdot dl/l$	NO ₃ -N $\mu g \cdot dl/l$	SiO ₄ -Si $\mu g \cdot dl/l$	pH	S CC
		STD	0000	0343													
122		OBS	0000	0343													
		STD	0010	0342													
		STD	0020	0342													
122		OBS	0026	0341													
		STD	0030	0341													
		STD	0050	0341													
122		OBS	0051	0341													
		STD	0075	0341													
		STD	0100	0340													
122		OBS	0101	0340													
		STD	0125	0343													
		STD	0150	0345													
122		OBS	0150	0345													
122		OBS	T0199	0344													
		STD	0200	0344													
122		OBS	0247	0344													
		STD	0250	0344													
122		OBS	0294	0345													
		STD	0300	0345													
122		OBS	T0388	0344													
		STD	0400	0344													
122		OBS	0485	0346													
		STD	0500	0346													
122		OBS	0581	0346													
		STD	0600	0346													
		STD	0700	0347													
122		OBS	0774	0347													
		STD	0800	0349													
		STD	0900	0354													
122		OBS	T0965	0357													
		STD	1000	0357													
		STD	1100	0356													
		STD	1200	0355													
		STD	1300	0354													
		STD	1400	0354													
122		OBS	T1466	0353													

Table V. Observed and interpolated oceanographic data for station taken by USCGC ESCANABA at Ocean Station BRAVO, 6-24 April 1967, prepared from NODC listing No. 31-887 EN.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR/10	MARS DEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR/1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
31	887	EN	5653 N	05028 W	186	60	04	06	131	1967	824	001		16	16	2	3		X7	5	7	0001	
		WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS												
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB															
				35		S22	098	017	006	5	14												
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH						
		STD	0000	0365	3485	2773	0003783		0000	14652													
131		OBS	0000	0365	34853	2773				14652													
		STD	0010	0365	3486	2773	0003735		0004	14653													
		STD	0020	0364	3486	2773	0003740		0007	14655													
131		OBS	0026	0364	34863	2774				14656													
		STD	0030	0364	3486	2774	0003725		0011	14657													
		STD	0050	0364	3486	2774	0003735		0019	14660													
131		OBS	0051	0364	34864	2774				14660													
		STD	0075	0364	3486	2774	0003758		0028	14664													
		STD	0100	0364	3487	2774	0003772		0037	14666													
131		OBS	0101	0364	34865	2774				14668													
		STD	0125	0365	3487	2774	0003794		0047	14673													
		STD	0150	0367	3487	2774	0003816		0056	14678													
131		OBS	0151	0367	34869	2774				14678													
		STD	0200	0365	3487	2774	0003834		0076	14685													
131		OBS	T0200	0365	34870	2774				14685													
		STD	0250	0366	3487	2774	0003881		0095	14694													
131		OBS	0250	0366	34871	2774				14694													
		STD	0300	0366	3487	2774	0003933		0114	14702													
131		OBS	0301	0366	34868	2774				14702													
		STD	0400	0365	3487	2774	0004011		0154	14718													
131		OBS	0400	0365	34870	2774				14718													
		STD	0500	0365	3487	2774	0004099		0195	14735													
131		OBS	0501	0365	34870	2774				14735													
		STD	0600	0362	3487	2775	0004132		0236	14750													
131		OBS	0602	0362	34873	2775				14750													
		STD	0700	0359	3487	2775	0004204		0277	14765													
		STD	0800	0355	3487	2775	0004250		0320	14780													
131		OBS	0813	0355	34866	2775				14782													
		STD	0900	0356	3488	2775	0004305		0363	14798													
		STD	1000	0358	3489	2776	0004324		0406	14815													
131		OBS	T1022	0358	34888	2776				14819													
		STD	1100	0358	3489	2776	0004381		0449	14832													
		STD	1200	0358	3489	2777	0004441		0493	14849													
		STD	1300	0358	3490	2777	0004508		0538	14866													
		STD	1400	0356	3490	2777	0004542		0583	14882													
		STD	1500	0354	3490	2778	0004575		0629	14898													
131		OBS	T1592	0352	34903	2778				14912													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR/10	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER						
CTRY CODE	IO. NO.								CRUISE NO.		STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT							
	10°					1°	MO	DAY			HR/10	DRY BULB					WET BULB			NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
31	887	EN	5623 N	05102 W	186	61	04 07	134	1967	824	002		04	33	2	5		X9	5	8		0002					
		WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																			
				05		S05	017	033	022	7	09																
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH										
		STD	0000	0341	3482	2773	0003776		0000	14641																	
134		OBS	0000	0341	34824	2773				14641																	
		STD	0010	0340	3483	2773	0003762		0004	14643																	
		STD	0020	0339	3483	2773	0003756		0008	14644																	
134		OBS	0025	0339	34828	2773				14645																	
		STD	0030	0339	3483	2773	0003753		0011	14645																	
		STD	0050	0338	3483	2773	0003760		0019	14648																	
134		OBS	0050	0338	34828	2773				14648																	
		STD	0075	0338	3483	2773	0003776		0028	14652																	
		STD	0100	0337	3483	2773	0003800		0038	14656																	
134		OBS	0100	0337	34827	2773				14656																	
		STD	0125	0340	3483	2773	0003826		0047	14662																	
		STD	0150	0342	3483	2773	0003851		0057	14667																	
134		OBS	0150	0342	34832	2773				14667																	
		STD	0200	0345																							
134		OBS	T0202	0345																							
		STD	0250	0347																							
134		OBS	0251	0347																							
		STD	0300	0343																							
134		OBS	0301	0343																							
134		OBS	T0399	0349																							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	

31	887	EN	56140N	050590W	186	60	04	08	124	1967	B24	003		16	34	2	3		X1	7	6	0003
						WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB										
								24	511	166	-017	-028	7	13								

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20P	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₂ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C
		STD	0000	0338													
124		OBS	0000	0338													
		STD	0010	0338													
		STD	0020	0337													
124		OBS	0025	0337													
		STD	0030	0337													
		STD	0050	0338													
124		OBS	0053	0338													
		STD	0075	0338													
		STD	0100	0338													
124		OBS	0109	0338													
		STD	0125	0339													
		STD	0150	0340													
124		OBS	0163	0341													
		STD	0200	0340													
124		OBS	T0218	0339	34820	2773				14676							
		STD	0250	0343	3483	2773	0003959			14683							
		STD	0300	0348	3484	2773	0003976			14694							
124		OBS	0325	0350	34843	2773				14699							
		STD	0400	0351	3485	2774	0004013			14711							
124		OBS	T0426	0351	34851	2774				14716							
		STD	0500	0351	3486	2774	0004055			14728							
124		OBS	0500	0351	34856	2774				14728							
124		OBS	T0575	0351	34855	2774				14741							
		STD	0600	0351	3486	2774	0004147			14745							
		STD	0700	0352	3486	2774	0004222			14762							
124		OBS	0767	0352	34858	2774				14773							
		STD	0800	0354	3486	2774	0004309			14779							
		STD	0900	0360	3488	2775	0004312			14799							
124		OBS	0983	0363	34892	2776				14814							
		STD	1000	0363	3489	2776	0004339			14817							
		STD	1100	0361	3489	2776	0004385			14833							
		STD	1200	0359	3490	2777	0004430			14849							
		STD	1300	0357	3490	2777	0004482			14865							
		STD	1400	0355	3490	2777	0004525			14881							
		STD	1500	0353	3490	2778	0004566			14897							
124		OBS	T1570	0352	34902	2778				14908							

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DUTY NO.	MARSOEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	887	EN	5639 N	050383W		186	60	04	10	125	1967	B24	004		14	21	5	4		X1	0		0004	
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY RULE	WET RULE												
									19	S28	081	044	044	7	14									
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-2107		Σ Δ σ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C C					
		STD	0000	0350	3486	2775	0003558		0000	14646														
125		OBS	0000	0350	34864	2775	0003558			14646														
		STD	0010	0350	3486	2775	0003567		0004	14647														
		STD	0020	0350	3486	2775	0003576		0007	14649														
125		OBS	0024	0350	34864	2775	0003592		0011	14650														
		STD	0030	0350	3486	2775	0003592			14651														
125		OBS	0047	0350	34861	2775	0003633		0018	14653														
		STD	0050	0350	3486	2775	0003659		0027	14654														
		STD	0075	0351	3486	2775	0003659			14658														
125		OBS	0094	0351	34858	2774	0003684		0036	14661														
		STD	0100	0351	3486	2775	0003706		0045	14662														
		STD	0125	0351	3486	2775	0003706			14667														
125		OBS	0140	0351	34864	2775	0003698		0055	14669														
		STD	0150	0351	3486	2775	0003698			14671														
125		OBS	T0187	0351	34865	2775	0003738		0073	14677														
		STD	0200	0351	3486	2775	0003738			14679														
125		OBS	0226	0350	34861	2775	0003788		0092	14683														
		STD	0250	0351	3486	2775	0003788			14687														
125		OBS	0262	0351	34864	2775	0003690		0111	14689														
		STD	0300	0349	3488	2776	0003690			14695														
125		OBS	0333		34888		0003717		0148	14710														
		STD	0400	0345	3488	2777	0003717			14710														
125		OBS	0404	0345	34882	2777	0003797		0185	14710														
		STD	0500	0345	3488	2777	0003868		0224	14724														
		STD	0600	0344	3488	2777	0003797			14742														
125		OBS	0680	0343	34881	2777	0003868			14755														
		STD	0700	0343	3488	2777	0003950		0263	14759														
		STD	0800	0344	3488	2777	0004029		0303	14776														
125		OBS	0887	0344	34882	2777	0004110		0343	14790														
		STD	0900	0344	3488	2777	0004110			14793														
		STD	1000	0346	3489	2777	0004171		0385	14810														
		STD	1100	0349	3490	2778	0004233		0427	14828														
		STD	1200	0351	3490	2778	0004295		0470	14846														
		STD	1300	0353	3491	2778	0004357		0513	14864														
		STD	1400	0355	3491	2778	0004421		0557	14881														
125		OBS	T1442	0356	34916	2779	0004421			14889														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	TYPE (A-MT)	NODC STATION NUMBER
CRUISE CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	WGT	PER				

31	887	EN	56395N	051065W		186	61	04	11	122	1967	B24	005		15	07	2	2		X4	3	8	0005
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		07	S20	963	028	028	5	14	
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MESSENGER TIME NR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - dl/l$	TOTAL-P $\mu g - dl/l$	NO ₂ -N $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	SIO ₄ -Si $\mu g - dl/l$	pH	S C
		STD	0000	0347	3486	2775	0003553	0000	14644								
122		OBS	0000	0347	34861	2775			14644								
		STD	0010	0343	3486	2776	0003517	0004	14644								
		STD	0020	0341	3486	2776	0003499	0007	14645								
122		OBS	0026	0340	34863	2776			14646								
		STD	0030	0340	3486	2776	0003525	0011	14646								
122		OBS	0047	0342	34859	2775			14650								
		STD	0050	0342	3486	2775	0003564	0018	14650								
		STD	0075	0342	3486	2776	0003558	0027	14654								
		STD	0100	0341	3487	2776	0003552	0035	14658								
122		OBS	0101	0341	34865	2776			14658								
		STD	0125	0342	3486	2775	0003624	0044	14663								
		STD	0150	0344	3486	2775	0003659	0054	14668								
122		OBS	0152	0344	34858	2775			14668								
		STD	0200	0341	3486	2776	0003674	0072	14675								
122		OBS	T0202	0341	34860	2776			14675								
122		OBS	0249	0340	34869	2776			14682								
		STD	0250	0340	3487	2776	0003637	0090	14683								
122		OBS	0294	0341	34862	2776			14690								
		STD	0300	0341	3486	2776	0003734	0109	14691								
122		OBS	0374	0341	34870	2776			14704								
		STD	0400	0341	3487	2776	0003761	0146	14708								
122		OBS	0444	0342	34872	2776			14716								
		STD	0500	0343	3487	2776	0003864	0184	14725								
122		OBS	T0520	0343	34869	2776			14729								
		STD	0600	0343	3487	2776	0003953	0223	14742								
		STD	0700	0344	3487	2776	0004040	0263	14759								
122		OBS	0710	0344	34871	2776			14761								
		STD	0800	0344	3487	2776	0004115	0304	14776								
		STD	0900	0344	3487	2776	0004196	0346	14792								
122		OBS	0919	0344	34871	2776			14795								
		STD	1000	0345	3488	2777	0004243	0388	14809								
		STD	1100	0346	3489	2777	0004276	0430	14827								
		STD	1200	0348	3489	2777	0004328	0473	14844								
		STD	1300	0350	3490	2778	0004373	0517	14862								
		STD	1400	0353	3491	2778	0004439	0561	14880								
122		OBS	T1473	0355	34913	2778			14894								

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	DEPT INCH	MARS SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
CTRY CODE	ID. NO.					1/10	1/10	10"	1"	MO	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT
31	887	EN	5639	N	050490W	186	60	04	14	178	1967	B24	006		15	02	2	5		X7	9	6		0006		
WATER		WIND		AIR TEMP. °C		VIS.		NO. OBS.		SPECIAL		CLOUD		NODC												
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARD- METER (mb)	DRY BULB	WET BULB	CODE	DEPTH	OBSERVATIONS	TYPE	AMT	TYPE	AMT	TYPE	AMT											
		02	518	146	006	-011	7	14																		
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P $\mu g - at/l$	TOTAL-P $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	SiO ₄ -Si $\mu g - at/l$	pH	S C									
		STD	0000	0351	3485	2774	0003643	0000	14646																	
178		OBS	0000	0351	34854	2774			14646																	
		STD	0010	0345	3485	2775	0003596	0004	14645																	
		STD	0020	0341	3485	2775	0003567	0007	14645																	
178		OBS	0024	0340	34854	2775			14645																	
		STD	0030	0340	3486	2775	0003559	0011	14646																	
		STD	0050	0340	3486	2776	0003553	0018	14650																	
178		OBS	0050	0340	34858	2776			14650																	
		STD	0075	0339	3486	2776	0003557	0027	14653																	
178		OBS	0099	0338	34860	2776			14657																	
		STD	0100	0338	3486	2776	0003562	0036	14657																	
		STD	0125	0341	3486	2776	0003611	0045	14662																	
		STD	0150	0344	3485	2775	0003705	0054	14668																	
178		OBS	0150	0344	34854	2775			14668																	
		STD	0200	0344	3486	2775	0003740	0072	14676																	
178		OBS	T0202	0344	34855	2775			14676																	
		STD	0250	0345	3486	2775	0003792	0091	14685																	
178		OBS	0250	0345	34855	2775			14685																	
		STD	0300	0344	3486	2775	0003786	0110	14692																	
178		OBS	0300	0344	34860	2775			14692																	
178		OBS	T0394	0343	34859	2775			14708																	
		STD	0400	0343	3486	2775	0003862	0148	14709																	
178		OBS	0497	0348	34862	2775			14727																	
		STD	0500	0348	3486	2775	0003980	0188	14727																	
178		OBS	0520	0349	34863	2775			14731																	
		STD	0600	0349	3486	2775	0004065	0228	14744																	
		STD	0700	0348	3486	2775	0004145	0269	14761																	
178		OBS	0798	0347	34861	2775			14776																	
		STD	0800	0347	3486	2775	0004223	0311	14777																	
		STD	0900	0346	3486	2775	0004293	0353	14793																	
		STD	1000	0345	3486	2775	0004369	0397	14809																	
178		OBS	1000	0345	34860	2775			14809																	
		STD	1100	0347	3487	2776	0004425	0441	14827																	
		STD	1200	0350	3487	2776	0004489	0485	14845																	
		STD	1300	0352	3488	2776	0004546	0530	14863																	
		STD	1400	0355	3489	2776	0004604	0576	14881																	
		STD	1500	0357	3489	2777	0004663	0622	14899																	
178		OBS	T1505	0357	34894	2777			14900																	

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	HARDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR./10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

31	887	EN	5626 N	050590W	186 60	04	16	006	1967	824	007		13	33	3	3		X7	4	8	0007
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WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mba)	DRY BULB	WET BULB	VIS. CODE

		32	S16	166	006	000	5	14
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	SEC
		STD	0000	0345	3486	2775	0003572	0000	14643								
	006	OBS	0000	0345	34856	2775			14643								
		STD	0010	0342	3486	2775	0003555	0004	14644								
		STD	0020	0340	3486	2775	0003539	0007	14644								
	006	OBS	0022	0339	34856	2775			14644								
		STD	0030	0339	3486	2775	0003546	0011	14646								
	006	OBS	0043	0340	34857	2775			14648								
		STD	0050	0340	3486	2775	0003560	0018	14650								
		STD	0075	0340	3486	2775	0003589	0027	14654								
	006	OBS	0088	0340	34855	2775			14656								
		STD	0100	0341	3486	2775	0003628	0036	14658								
		STD	0125	0343	3486	2775	0003671	0045	14663								
	006	OBS	0131	0344	34850	2775Q											
		STD	0150	0345	3485	2775	0003715	0054	14668								
	006	OBS	T0177	0346	34854	2775			14673								
		STD	0200	0346	3486	2775	0003722	0073	14677								
	006	OBS	0220	0346	34864	2775			14680								
		STD	0250	0347	3487	2775	0003733	0091	14685								
	006	OBS	0263	0347	34866	2776			14688								
		STD	0300	0347	3487	2776	0003741	0110	14694								
	006	OBS	T0346	0347	34873	2776			14702								
		STD	0400	0348	3487	2776	0003831	0148	14711								
	006	OBS	0439	0348	34869	2776			14717								
		STD	0500	0348	3487	2776	0003927	0187	14727								
	006	OBS	0529	0347	34869	2776			14732								
		STD	0600	0344	3486	2775	0004034	0226	14742								
	006	OBS	0686	0341	34857	2775			14755								
		STD	0700	0341	3486	2776	0004084	0267	14758								
		STD	0800	0342	3486	2776	0004170	0308	14774								
	006	OBS	0884	0342	34869	2776			14789								
		STD	0900	0342	3487	2776	0004192	0350	14792								
		STD	1000	0344	3487	2776	0004283	0392	14809								
		STD	1100	0346	3487	2776	0004377	0436	14826								
		STD	1200	0348	3487	2776	0004469	0480	14844								
		STD	1300	0349	3487	2776	0004556	0525	14862								
	006	OBS	T1342	0350	34874	2776			14869								

95

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR./1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	887	EN	5615 N	05046 W	186	60	04	19	120	1967	824	009		16	33	2	4		X2	6	8		0009
						WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
									31	515	254	011	-017	7	14								
MESSNGR TIME OF HR 1/10	CAS NO.	CAR TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-310°	Σ Δ O OTN, M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C						
		STD	0000	0344	3486	2775	0003570	0000	14643														
120		OBS	0000	0344	34855	2775			14643														
		STD	0010	0343	3486	2775	0003569	0004	14644														
		STD	0020	0342	3486	2775	0003569	0007	14645														
120		OBS	0026	0344	34855	2775			14646														
		STD	0030	0341	3486	2775	0003565	0011	14647														
		STD	0050	0339	3485	2775	0003576	0018	14649														
120		OBS	0052	0339	34854	2775			14649														
		STD	0075	0339	3485	2775	0003591	0027	14653														
		STD	0100	0338	3485	2775	0003607	0036	14657														
120		OBS	0104	0338	34854	2775			14658														
		STD	0125	0339	3486	2775	0003631	0045	14662														
		STD	0150	0341	3486	2775	0003658	0054	14666														
120		OBS	0156	0341	34856	2775			14667														
		STD	0200	0341	3486	2775	0003696	0072	14675														
120		OBS	T0209	0341	34857	2775			14676														
		STD	0250	0341	3486	2775	0003730	0091	14683														
120		OBS	0261	0341	34858	2775			14685														
		STD	0300	0342	3486	2776	0003764	0110	14692														
120		OBS	0312	0342	34861	2776			14694														
		STD	0400	0344	3487	2776	0003792	0147	14709														
120		OBS	T0413	0344	34874	2776			14711														
		STD	0500	0343	3487	2776	0003899	0186	14725														
120		OBS	0515	0343	34864	2776			14728														
		STD	0600	0347	3487	2776	0003994	0225	14744														
120		OBS	0617	0348	34872	2776			14747														
		STD	0700	0345	3487	2776	0004062	0266	14759														
		STD	0800	0342	3487	2776	0004137	0307	14775														
120		OBS	0827	0341	34864	2776			14779														
		STD	0900	0342	3487	2776	0004210	0348	14791														
		STD	1000	0344	3487	2776	0004298	0391	14809														
120		OBS	T1040	0345	34869	2776			14816														
		STD	1100	0346	3487	2776	0004401	0434	14827														
		STD	1200	0348	3487	2775	0004512	0479	14844														
		STD	1300	0350	3487	2775	0004623	0525	14862														
		STD	1400	0352	3487	2775	0004734	0571	14879														
		STD	1500	0354	3486	2775	0004846	0619	14897														
120		OBS	T1578	0355	34863	2774			14911														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDICATOR	MARDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CITY CODE	ID. NO.						MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	887	EN	56311N	050381W		186 60	04	20	120	1967	B24	010		15	04	2	3		X7	6	8	0010
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WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbars)	DRY BULB	WET BULB		

			05	522	149	-006	-022	7	14	
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MISSING TIME HR	1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-1107	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C C
			STD	0000	0338	3486	2776	0003462	0000	14641								
120			OBS	0000	0338	34862	2776			14641								
			STD	0010	0338	3486	2776	0003466	0003	14642								
			STD	0020	0337	3486	2776	0003470	0007	14643								
			STD	0030	0336	3486	2776	0003480	0010	14645								
120			OBS	0038	0336	34861	2776			14646								
			STD	0050	0336	3486	2776	0003501	0017	14648								
120			OBS	0052	0336	34860	2776			14648								
			STD	0075	0336	3486	2776	0003514	0026	14652								
			STD	0100	0336	3486	2776	0003527	0035	14656								
120			OBS	0103	0336	34862	2776			14657								
			STD	0125	0337	3486	2776	0003556	0044	14661								
			STD	0150	0338	3486	2776	0003594	0053	14665								
120			OBS	0153	0338	34861	2776			14666								
			STD	0200	0337	3486	2776	0003635	0071	14673								
120			OBS	T0203	0337	34860	2776			14674								
			STD	0250	0335	3486	2776	0003657	0089	14680								
120			OBS	0252	0335	34860	2776			14681								
			STD	0300	0337	3486	2776	0003716	0107	14689								
120			OBS	0302	0337	34860	2776			14690								
120			OBS	T0397	0339	34864	2776			14706								
			STD	0400	0339	3486	2776	0003790	0145	14707								
120			OBS	0497	0342	34869	2776			14724								
			STD	0500	0342	3487	2776	0003865	0183	14725								
120			OBS	0595	0344	34865	2776			14741								
			STD	0600	0344	3487	2776	0003998	0223	14742								
			STD	0700	0345	3487	2776	0004076	0263	14759								
120			OBS	0795	0346	34868	2776			14776								
			STD	0800	0346	3487	2776	0004160	0304	14776								
			STD	0900	0343	3487	2776	0004207	0346	14792								
120			OBS	T0996	0341	34867	2776			14807								
			STD	1000	0341	3487	2776	0004249	0388	14808								
			STD	1100	0342	3487	2776	0004337	0431	14825								
			STD	1200	0343	3487	2776	0004424	0475	14842								
			STD	1300	0343	3487	2776	0004511	0520	14859								
			STD	1400	0344	3487	2776	0004597	0565	14876								
			STD	1500	0345	3487	2776	0004684	0612	14893								
120			OBS	T1547	0345	34873	2776			14901								

REFERENCE		SHIP CODE	LATITUDE ' 1/10	LONGITUDE ' 1/10	DRIFT HOUR	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDOC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB				
		29	S19	027	-017	-017	6	14		

MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. AL. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	S C
		STD	0000	0337	3485	2775	0003528	0000	14640								
182		OBS	0000	0337	34852	2775			14640								
		STD	0010	0336	3485	2775	0003530	0004	14641								
		STD	0020	0336	3485	2776	0003531	0007	14643								
182		OBS	0027	0335	34852	2776			14644								
		STD	0030	0335	3485	2776	0003536	0011	14644								
182		OBS	0049	0336	34854	2776			14648								
		STD	0050	0336	3485	2776	0003546	0018	14648								
		STD	0075	0336	3485	2776	0003566	0027	14652								
182		OBS	0094	0336	34854	2776			14655								
		STD	0100	0336	3485	2776	0003588	0036	14656								
		STD	0125	0337	3486	2776	0003599	0044	14660								
182		OBS	0139	03480	34857	27750											
		STD	0150	0337	3486	2776	0003617	0054	14665								
182		OBS	T0190	0338	34859	2776			14672								
		STD	0200	0338	3486	2776	0003647	0072	14674								
182		OBS	0226	0339	34863	2776			14678								
		STD	0250	0339	3486	2776	0003690	0090	14682								
182		OBS	0272	0338	34859	2776			14685								
		STD	0300	0338	3486	2776	0003734	0109	14690								
182		OBS	T0365	0338	34859	2776			14701								
		STD	0400	0338	3486	2776	0003816	0146	14706								
182		OBS	0452	0338	34859	2776			14715								
		STD	0500	0341	3486	2776	0003921	0185	14724								
182		OBS	0542	0343	34863	2776			14732								
		STD	0600	0341	3486	2776	0003997	0225	14741								
		STD	0700	0336	3486	2776	0004033	0265	14756								
182		OBS	0730	0335	34858	2776			14760								
		STD	0800	0339	3486	2776	0004142	0306	14773								
		STD	0900	0343	3486	2775	0004266	0348	14792								
182		OBS	T0922	0344	34864	2776			14796								
		STD	1000	0347	3487	2776	0004318	0391	14810								
		STD	1100	0349	3487	2776	0004422	0434	14828								
		STD	1200	0351	3487	2775	0004526	0479	14845								
		STD	1300	0352	3488	2776	0004545	0524	14863								
		STD	1400	0352	3488	2776	0004624	0570	14880								
182		OBS	T1465	0352	34884	2776			14891								

REFERENCE CTRY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLE'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
						10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	887	EN	5609 N	05050 W		186	60	04	24	121	1967	824	012		15	32	2	4		X7	8	6	0012
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WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY RULB	WET RULB			
			33	515	993	-028	-028	7	14

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - 01/1$	TOTAL-P $\mu g - 01/1$	NO ₂ -N $\mu g - 01/1$	NO ₃ -N $\mu g - 01/1$	SiO ₄ -Si $\mu g - 01/1$	pH	S C
		STD	0000	0338	3485	2775	0003553	0000	14640								
121		OBS	0000	0338	34850	2775			14640								
		STD	0010	0336	3485	2775	0003545	0004	14641								
		STD	0020	0335	3465	2775	0003539	0007	14642								
121		OBS	0024	0334	34846	2775			14643								
		STD	0030	0334	3485	2775	0003573	0011	14644								
121		OBS	0048	0335	34847	2775			14647								
		STD	0050	0335	3485	2775	0003588	0018	14647								
		STD	0075	0334	3484	2775	0003622	0027	14651								
121		OBS	0096	0333	34841	2775			14654								
		STD	0100	0333	3484	2775	0003652	0036	14655								
		STD	0125	0335	3485	2775	0003664	0045	14660								
121		OBS	0144	0336	34847	2775			14663								
		STD	0150	0336	3485	2775	0003683	0054	14664								
121		OBS	T0195	0338	34848	2775			14672								
		STD	0200	0338	3485	2775	0003734	0073	14673								
121		OBS	0241	0338	34846	2775			14680								
		STD	0250	0337	3485	2775	0003751	0091	14681								
121		OBS	0289	0336	34851	2775			14687								
		STD	0300	0336	3485	2775	0003775	0110	14689								
121		OBS	T0383	0337	34852	2775			14703								
		STD	0400	0339	3485	2775	0003863	0149	14707								
121		OBS	0482	0347	34861	2775			14724								
		STD	0500	0347													
121		OBS	0578	0347													
		STD	0600	0347													
		STD	0700	0346													
121		OBS	0772	0346													
		STD	0800	0346													
		STD	0900	0345													
121		OBS	T0967	0344													
		STD	1000	0345													
		STD	1100	0348													
		STD	1200	0350													
		STD	1300	0353													
		STD	1400	0355													
121		OBS	T1464	0357													

Table VI. Observed and interpolated oceanographic data for stations taken by USCGC SPENCER at Ocean Station BRAVO, 27 May-6 June 1967, prepared from NODC listing No. 31-1063 SC.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE INDEX	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	1063	SC	5627 N	05104 W		186	61	05	27	156	1967	825	001	3658	16	02	2	0		X2	7	8	0001
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB												
									32	508	268	072	056	7	14								
MESSAGE TIME OF HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-30°	Σ Δ σ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C						
		STD	0000	0465	3481	2759	0005084	0000	14693														
156		OBS	0000	0465	34814	2759			14693														
		STD	0010	0461	3481	2759	0005090	0005	14693														
		STD	0020	0454	3481	2759	0005057	0010	14692														
156		OBS	0026	0448	34802	2760			14690														
		STD	0030	0442	3481	2761	0004934	0015	14689														
		STD	0050	0416	3483	2765	0004521	0025	14681														
156		OBS	0052	0413	34830	2766			14680														
		STD	0075	0380	3484	2770	0004094	0035	14670														
		STD	0100	0357	3484	2772	0003893	0045	14665														
156		OBS	0103	0355	34842	2773			14664														
		STD	0125	0355	3485	2773	0003820	0055	14668														
		STD	0150	0355	3485	2773	0003842	0065	14672														
156		OBS	0155	0355	34854	2774			14673														
		STD	0200	0358	3486	2774	0003835	0084	14662														
156		OBS	T0209	0358	34866	2774			14684														
		STD	0250	0358	3487	2774	0003838	0103	14690														
156		OBS	0259	0358	34866	2774			14692														
		STD	0300	0357	3486	2774	0003919	0122	14698														
156		OBS	0311	0357	34859	2774			14700														
		STD	0400	0357	3487	2775	0003958	0162	14715														
156		OBS	T0413	0357	34867	2775			14717														
		STD	0500	0358	3486	2774	0004097	0202	14731														
156		OBS	0518	0358	34858	2774			14734														
		STD	0600	0358	3486	2774	0004185	0243	14748														
156		OBS	0621	0358	34866	2774			14752														
		STD	0700	0356	3487	2775	0004204	0285	14764														
		STD	0800	0354	3487	2775	0004261	0328	14780														
156		OBS	0831	0353	34866	2775			14785														
		STD	0900	0353	3487	2775	0004343	0371	14796														
		STD	1000	0353	3486	2775	0004440	0415	14813														
156		OBS	T1040	0353	34862	2775			14819														
		STD	1100	0354	3487	2775	0004511	0459	14830														
		STD	1200	0356	3487	2775	0004561	0505	14847														
		STD	1300	0357	3488	2776	0004604	0551	14865														
		STD	1400	0359	3489	2776	0004655	0597	14883														
		STD	1500	0361	3490	2776	0004706	0644	14900														
156		OBS	T1573	0362	34900	2777			14913														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE INDIC	MARSO SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
CTRY CODE	NO.						10"	1"	MO		DAY	HR. 1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT			
311063	SC	5631 N	05107 W		186	61 05 28	092	1967	025	002	3658	15	36	1	0		X2	8 8		0002	

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		29	503	244	072	050	7	14	

MESSNGR	CST	CARD	DEPTH	T °C	S %	SIGMA-T	SPECIFIC VOLUME	$\Sigma \Delta \rho$	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₂ -N	NO ₃ -N	SiO ₄ -Si	pH	3
TIME	NO.	TYPE	m				ANOMALY- $\times 10^7$	DYN. μ , $\times 10^3$	VELOCITY		μ g - μ l/l	μ g - μ l/l	μ g - μ l/l	μ g - μ l/l	μ g - μ l/l		C
		STD	0000	0458	3484	2762	0004807	0000	14691								
092		OBS	0000	0458	34841	2762			14691								
		STD	0010	0435	3484	2764	0004570	0005	14683								
		STD	0020	0420	3484	2766	0004419	0009	14678								
092		OBS	0025	0415	34844	2767			14677								
		STD	0030	0416	3485	2767	0004334	0014	14678								
		STD	0050	0419	3486	2768	0004310	0022	14683								
092		OBS	0051	0419	34820	27640											
		STD	0075	0390	3487	2771	0003968	0033	14675								
		STD	0100	0369	3487	2774	0003784	0042	14670								
092		OBS	0102	0368	34871	2774			14670								
		STD	0125	0365	3487	2774	0003766	0052	14673								
		STD	0150	0362	3487	2774	0003755	0061	14675								
092		OBS	0154	0361	34867	2774			14676								
		STD	0200	0361	3487	2774	0003794	0080	14683								
092		OBS	T0205	0361	34875	2775			14684								
		STD	0250	0356	3487	2775	0003786	0099	14689								
092		OBS	0257	0355	34868	2775			14690								
		STD	0300	0358	3487	2775	0003847	0118	14698								
092		OBS	0308	0358	34870	2775			14700								
		STD	0400	0355	3487	2775	0003881	0157	14714								
092		OBS	T0411	0355	34875	2775			14716								
		STD	0500	0354	3487	2775	0003983	0196	14730								
092		OBS	0514	0354	34867	2775			14732								
		STD	0600	0352	3487	2775	0004050	0236	14746								
092		OBS	0618	0352	34874	2776			14749								
		STD	0700	0351	3487	2776	0004090	0277	14762								
		STD	0800	0350	3488	2776	0004156	0318	14778								
092		OBS	0825	0350	34875	2776			14782								
		STD	0900	0350	3488	2776	0004230	0360	14795								
		STD	1000	0349	3488	2776	0004307	0403	14811								
092		OBS	1030	0349	34875	2776			14816								
		STD	1100	0350	3488	2776	0004362	0446	14828								
		STD	1200	0352	3488	2776	0004464	0490	14846								
		STD	1300	0354	3488	2776	0004567	0535	14864								
		STD	1400	0356	3489	2777	0004596	0581	14881								
		STD	1500	0357	3489	2776	0004698	0628	14899								
092		OBS	T1534	0358	34896	2777			14906								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSON SQUARE	STATION TIME GMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.						10"	1"	MO DAY HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

311063		SC	5634 N	05100 W		186	61	05	29	109	1967	825 003		3658	14	08	2	2		X2	7	8	0003
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			08	508	234	056	050	7	14
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MESSENGER TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\frac{\Delta \sigma}{\sigma}$ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	NO ₃ -N µg - ml/l	SIO ₄ -Si µg - ml/l	pH	S CG
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		STD	0000	0488	3483	2757	0005227	0000	14703								
109		OBS	0000	0488	34828	2757			14703								
		STD	0010	0437	3483	2763	0004718	0005	14683								
		STD	0020	0405	3482	2766	0004418	0010	14672								
109		OBS	0023	0399	34822	2767			14670								
		STD	0030	0404	3482	2766	0004417	0014	14673								
109		OBS	0045	0407	34826	2766			14677								
		STD	0050	0398	3483	2767	0004324	0023	14674								
		STD	0075	0362	3483	2771	0003994	0033	14663								
109		OBS	0092	0349	34839	2773			14660								
		STD	0100	0351	3484	2773	0003835	0043	14662								
		STD	0125	0356	3485	2773	0003830	0052	14669								
109		OBS	0137	0358	34855	2774			14671								
		STD	0150	0358	3486	2774	0003799	0062	14674								
109		OBS	T0184	0359	34866	2774			14680								
		STD	0200	0355	3486	2774	0003810	0081	14681								
109		OBS	0229	0351	34859	2775			14684								
		STD	0250	0353	3486	2774	0003833	0100	14688								
109		OBS	0274	0355	34867	2775			14693								
		STD	0300	0352	3487	2775	0003821	0119	14696								
109		OBS	T0365	0349	34862	2775			14705								
		STD	0400	0350	3486	2775	0003916	0158	14712								
109		OBS	0455	0352	34862	2775			14722								
		STD	0500	0353	3487	2775	0004009	0198	14729								
109		OBS	T0547	0354	34869	2775			14738								
		STD	0600	0353	3487	2775	0004061	0238	14746								
		STD	0700	0351	3487	2775	0004136	0279	14762								
109		OBS	0726	0350	34867	2775			14766								
		STD	0800	0350	3487	2775	0004200	0321	14778								
		STD	0900	0349	3487	2776	0004261	0363	14794								
109		OBS	T0911	0349	34870	2776			14796								
		STD	1000	0350	3487	2776	0004323	0406	14812								
		STD	1100	0351	3488	2776	0004379	0449	14829								
		STD	1200	0354	3488	2776	0004467	0494	14847								
		STD	1300	0357	3489	2776	0004547	0539	14865								
		STD	1400	0361	3489	2776	0004649	0585	14884								
109		OBS	T1413	0362	34893	2776			14886								

WATER		WIND		BARO-METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			
		04	506	213	067	061	7	14	

MESSNGR HR	TIME 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t^{20}	$\Sigma \Delta \sigma$ DTH, M, $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \sigma t/l$	TOTAL-P $\mu g - \sigma t/l$	NO ₂ -N $\mu g - \sigma t/l$	NO ₃ -N $\mu g - \sigma t/l$	SiO ₄ -Si $\mu g - \sigma t/l$	pH	$\frac{1}{1000}$
			STD	0000	0476	3482	2758	0005142	0000	14698								
098			OBS	0000	0476	34822	2758			14698								
			STD	0010	0474	3482	2758	0005142	0005	14699								
			STD	0020	0471	3482	2758	0005150	0010	14699								
098			OBS	0029	0469	34815	2759			14700								
			STD	0030	0467	3482	2759	0005124	0015	14699								
			STD	0050	0424	3483	2764	0004611	0025	14685								
098			OBS	0055	0415	34830	2766			14682								
			STD	0075	0386	3484	2769	0004176	0036	14673								
			STD	0100	0361	3485	2772	0003894	0046	14667								
098			OBS	0112	0353	34849	2774			14665								
			STD	0125	0353	3485	2774	0003808	0056	14667								
			STD	0150	0353	3485	2774	0003822	0065	14671								
098			OBS	0168	0353	34850	2774			14674								
			STD	0200	0350	3486	2774	0003791	0084	14678								
098			OBS	T0221	0349	34860	2775			14682								
			STD	0250	0348	3486	2775	0003784	0103	14686								
098			OBS	0278	0347	34856	2775			14690								
			STD	0300	0347	3486	2775	0003835	0122	14694								
098			OBS	0334	0346	34858	2775			14699								
			STD	0400	0350	3487	2776	0003856	0161	14712								
098			OBS	0446	0352	34875	2776			14720								
			STD	0500	0352	3487	2776	0003931	0200	14729								
098			OBS	0559	0351	34872	2776			14739								
			STD	0600	0351	3487	2775	0004035	0240	14745								
098			OBS	T0673	0350	34868	2775			14757								
			STD	0700	0350	3487	2776	0004106	0280	14761								
			STD	0800	0350	3487	2776	0004184	0222	14778								
			STD	0900	0349	3487	2776	0004260	0264	14794								
098			OBS	0905	0349	34873	2776			14795								
			STD	1000	0350	3488	2776	0004281	0407	14812								
			STD	1100	0352	3488	2776	0004378	0450	14829								
098			OBS	T1142	0352	34882	2776			14836								
			STD	1200	0353	3489	2776	0004440	0494	14846								
			STD	1300	0353	3489	2777	0004491	0539	14863								
			STD	1400	0354	3489	2777	0004547	0584	14881								
			STD	1500	0354	3490	2777	0004597	0630	14898								
			STD	1750	0354	3491	2778	0004714	0746	14940								
098			OBS	T1764	0354	34910	2778			14942								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

311063 SC 5629 N 05104 W 186 61 06 01 097 1967 825 005 3580 18 07 2 4 X 2 7 8 0005

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE		DRY BULB	WET BULB		

07 508 186 061 056 7 14

MESSNGR TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t °	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C
		STD	0000	0477	3484	2760	0005025	0000	14699								
097		OBS	0000	0477	34839	2760			14699								
		STD	0010	0475	3484	2760	0005036	0005	14699								
		STD	0020	0473	3483	2760	0005047	0010	14700								
097		OBS	0028	0471	34831	2760			14701								
		STD	0030	0464	3483	2760	0004972	0015	14698								
		STD	0050	0409	3484	2767	0004383	0024	14678								
097		OBS	0056	0397	34839	2768			14674								
		STD	0075	0388	3486	2771	0004023	0035	14674								
		STD	0100	0378	3487	2773	0003872	0045	14674								
097		OBS	0113	0374	34872	2773			14675								
		STD	0125	0372	3487	2773	0003836	0054	14676								
		STD	0150	0368	3486	2773	0003894	0064	14678								
097		OBS	0169	0365	34858	2773			14680								
		STD	0200	0359	3486	2774	0003880	0084	14682								
097		OBS	T0224	0356	34854	2774			14685								
		STD	0250	0357	3486	2774	0003868	0103	14690								
097		OBS	0281	0357	34862	2774			14695								
		STD	0300	0359	3486	2774	0003914	0122	14699								
097		OBS	0338	0362	34866	2774			14706								
		STD	0400	0359	3487	2774	0003964	0162	14716								
097		OBS	T0450	0357	34870	2775			14723								
		STD	0500	0357	3487	2775	0004010	0202	14731								
097		OBS	0563	0356	34870	2775			14741								
		STD	0600	0358	3487	2775	0004110	0242	14748								
097		OBS	0676	0361	34870	2774			14762								
		STD	0700	0360	3487	2775	0004217	0284	14766								
		STD	0800	0356	3487	2775	0004255	0326	14781								
		STD	0900	0352	3487	2775	0004289	0369	14795								
097		OBS	0912	0351	34866	2775			14797								
		STD	1000	0351	3487	2775	0004369	0412	14812								
		STD	1100	0352	3487	2775	0004455	0456	14829								
097		OBS	T1155	0352	34874	2776			14838								
		STD	1200	0352	3488	2776	0004498	0501	14846								
		STD	1300	0353	3488	2776	0004563	0546	14863								
		STD	1400	0354	3488	2776	0004621	0592	14880								
		STD	1500	0354	3489	2776	0004680	0639	14897								
		STD	1750	0356	3490	2777	0004831	0758	14941								
097		OBS	T1791	0356	34898	2777			14948								

REFERENCE		SNIP CODE	LATITUDE °	LONGITUDE °	DRIFT INDIC	MARDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER									
CTRY CODE	ID. NO.						10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER		DIR.	HGT		PER	SEA		TYPE	AMT							
311063		SC	5627 N	05100 W		186	61	06	02	099	1967	B25	006		3580	19	18	2	2		X2	7	8		0006							
		WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																					
		COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																								
					18	S10	188	067	061	7	14																					
MESSNGR TIME HR. 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SIO ₄ -Si μg - ml/l	pH	SG															
		STD	0000	0498	3482	2756	0005397	0000	14707																							
099		OBS	0000	0498	34820	2756			14707																							
		STD	0010	0491	3483	2757	0005294	0005	14706																							
		STD	0020	0480	3483	2759	0005141	0011	14703																							
		STD	0030	0464	3484	2761	0004942	0016	14698																							
099		OBS	0030	0464	34836	2761			14698																							
		STD	0050	0412	3485	2768	0004315	0025	14680																							
099		OBS	0059	0394	34855	2770			14674																							
		STD	0075	0383	3486	2771	0003974	0035	14672																							
		STD	0100	0369	3486	2773	0003859	0045	14670																							
099		OBS	0121	0361	34867	2774			14670																							
		STD	0125	0361	3487	2774	0003750	0055	14671																							
		STD	0150	0360	3487	2774	0003770	0064	14675																							
099		OBS	0184	0359	34864	2774			14680																							
		STD	0200	0359	3486	2774	0003819	0083	14682																							
099		OBS	T0248	0358	34864	2774			14690																							
		STD	0250	0358	3486	2774	0003853	0102	14690																							
		STD	0300	0358	3487	2774	0003882	0121	14699																							
099		OBS	0313	0358	34866	2774			14701																							
099		OBS	0378	0359	34868	2774			14712																							
		STD	0400	0359	3487	2774	0003966	0161	14715																							
		STD	0500	0356	3486	2774	0004049	0201	14731																							
099		OBS	T0505	0356	34864	2774			14732																							
		STD	0600	0358	3487	2774	0004142	0242	14748																							
099		OBS	0631	0358	34865	2774			14753																							
		STD	0700	0357	3486	2774	0004240	0284	14765																							
099		OBS	T0750	0357	34862	2774			14773																							
		STD	0800	0356	3486	2774	0004321	0326	14781																							
		STD	0900	0355	3486	2774	0004383	0370	14797																							
		STD	1000	0354	3486	2775	0004452	0414	14813																							
099		OBS	1005	0354	34863	2775			14814																							
		STD	1100	0354	3487	2775	0004513	0459	14830																							
		STD	1200	0353	3487	2775	0004582	0504	14846																							
099		OBS	T1253	0353	34867	2775			14855																							
		STD	1300	0354	3487	2775	0004637	0550	14863																							
		STD	1400	0355	3487	2775	0004730	0597	14881																							
		STD	1500	0356	3487	2775	0004824	0645	14898																							
		STD	1750	0358	3489	2776	0004911	0767	14942																							
099		OBS	T1899	0360	34896	2777			14968																							

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBT INDCTR	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

311063		SC	5631 N	05052 W		186	60	06	03	098	1967	B25	007		3567	18	17	2		X2	7	8	0007
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. m1	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		17	510	020	056	050	7	14	
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-10 ³	$\Sigma \Delta \sigma$ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₃ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	1 C
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		STD	0000	0478	3478	2755	0005464	0000	14698								
098		OBS	0000	0478	3478.2	2755			14698								
		STD	0010	0452	3478	2758	0005183	0005	14689								
		STD	0020	0434	3479	2760	0004998	0010	14683								
098		OBS	0025	0427	3478.6	2761			14681								
		STD	0030	0427	3479	2761	0004884	0015	14682								
		STD	0050	0422	3482	2764	0004673	0025	14684								
098		OBS	0051	0421	3481.7	2764			14683								
		STD	0075	0384	3482	2768	0004261	0036	14672								
		STD	0100	0360	3483	2771	0004004	0046	14666								
098		OBS	0102	0359	3482.9	2771			14666								
		STD	0125	0359	3484	2772	0003934	0056	14670								
		STD	0150	0359	3484	2772	0003956	0066	14674								
098		OBS	0154	0359	3484.1	2772			14675								
		STD	0200	0357	3484	2773	0003945	0086	14681								
098		OBS	T0200	0356	3484.5	2773			14682								
		STD	0250	0358	3486	2774	0003918	0106	14690								
098		OBS	0257	0358	3485.7	2774			14691								
		STD	0300	0360	3486	2774	0003966	0125	14699								
098		OBS	0307	0360	3485.7	2773			14700								
		STD	0400	0356	3487	2775	0003928	0165	14714								
098		OBS	T0410	0355	3486.9	2775			14715								
		STD	0500	0356	3486	2774	0004061	0205	14731								
098		OBS	0526	0356	3486.0	2774			14735								
		STD	0600	0355	3486	2774	0004157	0246	14747								
098		OBS	0642	0355	3486.0	2774			14754								
		STD	0700	0354	3486	2774	0004225	0288	14763								
		STD	0800	0352	3486	2775	0004286	0330	14779								
098		OBS	0889	0351	3486.0	2775			14793								
		STD	0900	0351	3486	2775	0004357	0373	14795								
		STD	1000	0351	3486	2775	0004419	0417	14812								
		STD	1100	0350	3486	2775	0004488	0462	14828								
098		OBS	T1142	0350	3486.4	2775			14835								
		STD	1200	0351	3487	2775	0004526	0507	14845								
		STD	1300	0353	3487	2775	0004627	0553	14863								
		STD	1400	0354	3487	2775	0004728	0600	14880								
		STD	1500	0356	3488	2776	0004756	0647	14898								
		STD	1750	0360	3489	2776	0004936	0768	14942								
098		OBS	1792	0361	3489.6	2777			14950								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
311063		SC	5633 N	05057 W	186 60	06 05	102	1967	825	008		3612	14	13	1	2		X1	7	5		0008
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	HO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
COLOR CODE	TRANS. (M)	DIR.	SPEED OR FORCE	METER (mbars)	DRY RULR	WET RULR																
						13	S06	078	067	050	7	14										
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107	Σ Δ ρ OTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	1 CTC					
		STD	0000	0497	3483	2757	0005288	0000	14707													
102		OBS	0000	0497	34833	2757			14707													
		STD	0010	0487	3484	2758	0005138	0005	14704													
		STD	0020	0470	3485	2761	0004890	0010	14699													
102		OBS	0023	0464	34852	2762			14697													
		STD	0030	0440	3485	2765	0004561	0015	14688													
102		OBS	0048	0392	34854	2770			14671													
		STD	0050	0390	3486	2771	0004019	0024	14671													
		STD	0075	0374	3487	2773	0003810	0033	14668													
102		OBS	0095	0365	34874	2774			14668													
		STD	0100	0364	3488	2775	0003697	0043	14668													
		STD	0125	0362	3488	2775	0003678	0052	14672													
102		OBS	0143	0360	34880	2775			14674													
		STD	0150	0359	3488	2775	0003655	0061	14674													
102		OBS	0192	0357	34876	2775			14680													
		STD	0200	0357	3488	2775	0003713	0080	14682													
102		OBS	0240	0359	34876	2775			14689													
		STD	0250	0359	3488	2775	0003743	0098	14691													
102		OBS	0288	0359	34884	2776			14697													
		STD	0300	0359	3488	2776	0003757	0117	14699													
102		OBS	T0386	0358	34880	2776			14713													
		STD	0400	0358	3488	2776	0003864	0155	14715													
102		OBS	0478	0357	34870	2775			14728													
		STD	0500	0357	3487	2775	0004001	0194	14731													
102		OBS	T0578	0358	34878	2775			14745													
		STD	0600	0358	3488	2775	0004039	0235	14749													
		STD	0700	0360	3488	2775	0004142	0275	14766													
102		OBS	0767	0361	34885	2776			14778													
		STD	0800	0360	3488	2775	0004228	0317	14783													
		STD	0900	0356	3488	2776	0004266	0360	14797													
102		OBS	T0956	0355	34878	2776			14806													
		STD	1000	0355	3488	2776	0004338	0403	14814													
		STD	1100	0355	3488	2776	0004423	0447	14831													
		STD	1200	0356	3488	2776	0004507	0491	14847													
		STD	1300	0356	3488	2776	0004590	0537	14864													
		STD	1400	0356	3489	2777	0004600	0583	14881													
102		OBS	T1444	0356	34891	2777			14889													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE INDICATOR	MARDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MD	DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		TYPE	AMT	

WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			
		05	506	132	072	061	3	14	

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PD ₄ -P $\mu g - \sigma_t/l$	TOTAL-P $\mu g - \sigma_t/l$	NO ₃ -N $\mu g - \sigma_t/l$	NO ₃ -N $\mu g - \sigma_t/l$	SID ₄ -Si $\mu g - \sigma_t/l$	pH	S CC
		STD	0000	0539	3475	2745	0006382	0000	14723								
095		OBS	0000	0539	34750	2745			14723								
		STD	0010	0508	3475	2749	0006044	0006	14712								
		STD	0020	0483	3475	2752	0005781	0012	14703								
095		OBS	0025	0473	34749	2753			14700								
		STD	0030	0468	3475	2754	0005630	0018	14699								
095		OBS	0049	0444	34766	2757			14692								
		STD	0050	0442	3477	2758	0005226	0029	14691								
		STD	0075	0392	3481	2767	0004439	0041	14675								
095		OBS	0099	0361	34828	2771			14666								
		STD	0100	0361	3483	2771	0004006	0051	14666								
		STD	0125	0354	3483	2772	0003961	0061	14667								
095		OBS	0149	0351	34832	2772			14670								
		STD	0150	0351	3483	2772	0003938	0071	14670								
		STD	0200	0352	3485	2773	0003878	0091	14679								
095		OBS	T0202	0352	34848	2774			14680								
095		OBS	0249	0358	34852	2773			14690								
		STD	0250	0358	3485	2773	0003943	0110	14690								
095		OBS	0298	0358	34859	2774			14698								
		STD	0300	0358	3486	2774	0003926	0130	14698								
095		OBS	T0399	0361	34864	2774			14716								
		STD	0400	0361	3486	2774	0004014	0170	14716								
095		OBS	0494	0352	34860	2775			14728								
		STD	0500	0352	3486	2775	0004036	0210	14729								
095		OBS	T0594	0352	34864	2775			14745								
		STD	0600	0352	3486	2775	0004090	0251	14746								
		STD	0700	0353	3487	2775	0004164	0292	14762								
095		OBS	0792	0353	34868	2775			14778								
		STD	0800	0353	3487	2775	0004223	0334	14779								
		STD	0900	0353	3487	2775	0004300	0376	14796								
095		OBS	T0992	0352	34877	2776			14811								
		STD	1000	0352	3488	2776	0004326	0419	14812								
		STD	1100	0353	3488	2776	0004391	0463	14830								
		STD	1200	0354	3489	2776	0004455	0507	14847								
		STD	1300	0356	3489	2776	0004522	0552	14864								
		STD	1400	0357	3489	2777	0004594	0598	14882								
		STD	1500	0358	3490	2777	0004659	0644	14899								
095		OBS	T1526	0358	34897	2777			14904								

Table VII. Observed and interpolated oceanographic data for stations taken by USCGC SEBAGO at Ocean Station BRAVO, 29 June-21 July 1967, prepared from NODC listing No. 31-1092 S5.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS INCHES	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	1092	S5	5632 N	05057 W		186	60	06	29	200	1967	826	001	3566	14	30	3	3			3	8	0001
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB												
								22	512	145	089	071	7	14									
MESSNGR TIME HR 1/10	CAST NO.	CARGO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t 17	Σ Δ σ DYN. M., x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	DOC						
		STD	0000	0575	3473	2739	0006937	0000	14737														
200		OBS	0000	0575	3473.2	2739			14737														
		STD	0010	0572	3473	2740	0006911	0007	14738														
		STD	0020	0568	3473	2740	0006884	0014	14738														
200		OBS	0024	0567	3473.2	2740			14738														
		STD	0030	0558	3474	2742	0006739	0021	14735														
200		OBS	0049	0523	3475.1	2747			14724														
		STD	0050	0519	3475	2748	0006194	0034	14723														
		STD	0075	0433	3480	2762	0004918	0047	14692														
200		OBS	0098	0381	3484.7	2771			14675														
		STD	0100	0380	3485	2771	0004065	0059	14675														
		STD	0125	0365	3484	2772	0003962	0069	14672														
200		OBS	0146	0357	3484.2	2773			14672														
		STD	0150	0357	3484	2773	0003921	0079	14673														
200		OBS	T0196	0357	3484.5	2773			14681														
		STD	0200	0357	3485	2773	0003942	0098	14681														
200		OBS	0244	0356	3484.8	2773			14688														
		STD	0250	0356	3485	2773	0003938	0118	14689														
200		OBS	0293	0355	3485.2	2774			14696														
		STD	0300	0355	3485	2774	0003956	0138	14697														
200		OBS	T0390	0354	3485.3	2774			14712														
		STD	0400	0354	3485	2774	0004024	0178	14713														
200		OBS	0487	0354	3485.4	2774			14728														
		STD	0500	0354	3485	2774	0004102	0218	14730														
200		OBS	0585	0354	3485.6	2774			14744														
		STD	0600	0353	3486	2774	0004160	0260	14746														
		STD	0700	0351	3486	2774	0004215	0301	14762														
200		OBS	0780	0350	3485.7	2774			14775														
		STD	0800	0350	3486	2775	0004266	0344	14778														
		STD	0900	0351	3486	2775	0004359	0387	14795														
200		OBS	T0972	0352	3486.8	2775			14808														
		STD	1000	0352	3487	2775	0004381	0431	14813														
		STD	1100	0354	3487	2775	0004480	0475	14830														
		STD	1200	0355	3488	2776	0004506	0520	14847														
		STD	1300	0357	3488	2776	0004605	0565	14865														
		STD	1400	0358	3489	2776	0004631	0612	14882														
200		OBS	T1439	0359	3489.0	2776			14889														

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
31	1092	S5	5633 N	05100 W		186	61	06	30	203	1967	B26	002		3566	15	14	1	2		X1	0	2	0002
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbars)		DRY RULB	WET RULB															
				14	S10	168		083	073	7	14													
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-X10 ⁷		Σ Δ D OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₂ -Si μg - ml/l	pH	S C						
		STD	0000	0647	3474	2730	0007781		0000	14766														
203		OBS	0000	0647	34737	2730				14766														
		STD	0010	0620	3474	2734	0007451		0008	14757														
		STD	0020	0595	3474	2737	0007151		0015	14749														
203		OBS	0024	0586	34739	2739				14746														
		STD	0030	0577	3474	2740	0006949		0022	14743														
203		OBS	0049	0538	34739	2744				14730														
		STD	0050	0533	3474	2745	0006452		0035	14728														
		STD	0075	0429	3481	2763	0004816		0049	14691														
203		OBS	0097	0372	34844	2771				14671														
		STD	0100	0371	3484	2771	0003999		0060	14671														
		STD	0125	0362	3484	2772	0003933		0070	14671														
203		OBS	0146	0357	34843	2773				14672														
		STD	0150	0357	3484	2773	0003914		0080	14673														
203		OBS	T0195	0356	34848	2773				14680														
		STD	0200	0356	3485	2773	0003910		0100	14681														
203		OBS	0244	0355	34850	2773				14688														
		STD	0250	0355	3485	2773	0003929		0119	14689														
203		OBS	0294	0356	34852	2773				14696														
		STD	0300	0356	3485	2773	0003966		0139	14697														
203		OBS	T0388	0353	34853	2774				14711														
		STD	0400	0353	3485	2774	0004014		0179	14713														
203		OBS	0489	0352	34854	2774				14727														
		STD	0500	0353	3486	2774	0004046		0219	14729														
203		OBS	T0588	0355	34861	2774				14745														
		STD	0600	0355	3486	2774	0004145		0260	14747														
		STD	0700	0352	3486	2775	0004196		0302	14762														
203		OBS	0784	0350	34861	2775				14775														
		STD	0800	0350	3486	2775	0004256		0344	14778														
		STD	0900	0350	3486	2775	0004323		0387	14795														
203		OBS	T0970	0350	34865	2775				14806														
		STD	1000	0351	3487	2775	0004360		0431	14812														
		STD	1100	0352	3487	2775	0004462		0475	14829														
		STD	1200	0354	3488	2776	0004491		0519	14847														
		STD	1300	0356	3488	2776	0004595		0565	14865														
		STD	1400	0358	3489	2776	0004625		0611	14882														
203		OBS	1459	0359	34893	2776				14893														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
CTRY CODE	ID. NO.					10°		1°	MO		DAY	HR. 1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT
311092	S5	5630 N	05100 W	186	61	07	01	150	1967	826	003	3566	14	22	1	2			X4	0	3	0003		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH'S	SPECIAL OBSERVATIONS												
		COLOR CODE	TRANS. UMI	DIR.	SPEED OR FORCE	DRY BULB		WET BULB																
				23	S13	129	110	089	7	14														
WESSENGER TIME HR 1/10	CST NO.	CARD TYPE	DEPTH UMI	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S C C							
		STD	0000	0658	3475	2730	0007838	0000	14771															
150		OBS	0000	0658	34748	2730			14771															
		STD	0010	0622	3475	2735	0007401	0008	14758															
		STD	0020	0591	3475	2739	0007036	0015	14747															
150		OBS	0024	0580	34748	2740			14743															
		STD	0030	0568	3475	2742	0006759	0022	14740															
150		OBS	0047	0529	34766	2748			14727															
		STD	0050	0516	3477	2750	0006033	0035	14722															
		STD	0075	0431	3483	2764	0004687	0048	14692															
150		OBS	0094	0390	34854	2770			14678															
		STD	0100	0389	3486	2770	0004094	0059	14679															
		STD	0125	0384	3486	2771	0004053	0069	14681															
150		OBS	0140	0380	34859	2772			14681															
		STD	0150	0375	3486	2772	0003979	0079	14681															
150		OBS	T0187	0366	34853	2773			14683															
		STD	0200	0368	3486	2773	0003977	0099	14686															
150		OBS	0233	0371	34859	2773			14693															
		STD	0250	0371	3486	2773	0004022	0119	14696															
150		OBS	0279	0371	34860	2773			14700															
		STD	0300	0368	3486	2773	0004029	0139	14703															
150		OBS	T0370	0360	34855	2773			14711															
		STD	0400	0360	3486	2773	0004071	0180	14716															
150		OBS	0464	0360	34855	2773			14726															
		STD	0500	0359	3486	2773	0004147	0221	14732															
150		OBS	T0556	0357	34855	2774			14740															
		STD	0600	0356	3486	2774	0004200	0262	14747															
		STD	0700	0353	3486	2774	0004251	0305	14763															
150		OBS	0743	0352	34855	2774			14769															
		STD	0800	0351	3486	2774	0004309	0348	14779															
		STD	0900	0350	3486	2775	0004364	0391	14795															
150		OBS	T0927	0350	34859	2775			14799															
		STD	1000	0352	3486	2775	0004444	0435	14812															
		STD	1100	0354	3487	2775	0004475	0480	14830															
		STD	1200	0356	3487	2775	0004582	0525	14847															
		STD	1300	0358	3488	2776	0004614	0571	14865															
		STD	1400	0360	3489	2776	0004648	0617	14883															
150		OBS	1416	0360	34895	2777			14886															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT METER	MARS DEN SQUARE		STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL.	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER				
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT		
311092	55	5631 N	05056 W			186	60	07	03	169	1967	826	004	3658	35	16	1	4		X6	3	8	0004		
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB												
									16	510	036	093	080	7	18										
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D OYN. M. x 10 ²	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S	C					
		STD	0000	0674	3469	2723	0008447		0000	14776															
169		OBS	0000	0674	34694	2723				14776															
		STD	0010	0638	3470	2729	0007959		0008	14764															
		STD	0020	0604	3470	2733	0007552		0016	14752															
169		OBS	0027	0582	34703	2736				14744															
		STD	0030	0573	3471	2738	0007148		0023	14741															
		STD	0050	0517	3473	2746	0006366		0037	14722															
169		OBS	0054	0507	34731	2748				14718															
		STD	0075	0458	3480	2759	0005198		0051	14703															
		STD	0100	0415	3485	2767	0004396		0063	14689															
169		OBS	0109	0403	34865	2770				14686															
		STD	0125	0393	3487	2771	0004084		0074	14684															
		STD	0150	0382	3486	2772	0004004		0084	14684															
169		OBS	0164	0377	34864	2772				14684															
		STD	0200	0374	3486	2772	0003992		0104	14689															
169		OBS	T0219	0372	34860	2773				14691															
		STD	0250	0369	3486	2773	0003994		0124	14695															
169		OBS	0272	0367	34859	2773				14698															
		STD	0300	0367	3486	2773	0004026		0144	14702															
169		OBS	0324	0366	34858	2773				14706															
		STD	0400	0363	3486	2773	0004073		0184	14717															
169		OBS	T0437	0362	34859	2773				14723															
		STD	0500	0360	3486	2774	0004128		0225	14732															
169		OBS	0545	0359	34858	2774				14739															
		STD	0600	0359	3486	2774	0004210		0267	14749															
169		OBS	T0662	0358	34858	2774				14758															
		STD	0700	0358	3486	2774	0004269		0310	14765															
		STD	0800	0357	3486	2774	0004342		0353	14781															
169		OBS	0873	0356	34862	2774				14793															
		STD	0900	0356	3487	2775	0004339		0396	14797															
		STD	1000	0355	3488	2776	0004342		0439	14814															
169		OBS	T1096	0355	34884	2776				14830															
		STD	1100	0355	3488	2776	0004390		0483	14831															
		STD	1200	0355	3489	2776	0004457		0527	14847															
		STD	1300	0355	3489	2776	0004523		0572	14864															
		STD	1400	0355	3489	2777	0004589		0618	14881															
		STD	1500	0355	3489	2777	0004661		0664	14898															
169		OBS	T1645	0355	34894	2777				14922															
		STD	1750	0355	3489	2777	0004866		0783	14940															
		STD	2000	0349	3489	2777	0004977		0906	14980															
201		OBS	T2222	0340	34889	2778				15014															
		STD	2500	0321	3490	2781	0004868		1152	15054															
201		OBS	T2788	0295	34906	2784				15093															
		STD	3000	0284	3492	2786	0004491		1386	15125															
201		OBS	T3338	0227	34932	2792				15160															
201		OBS	T3541	0169	34931	2796				15170															

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INCHES	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER						
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT							
						WATER		WIND		BARO- METER (mba)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS													
COLOR CODE	TRANS. INT	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO ₂ -N $\mu g - \mu l/l$	NO ₃ -N $\mu g - \mu l/l$	Si O ₄ -Si $\mu g - \mu l/l$	pH	S C												
311092		S5	5630 N	05100 W		186	61	07	04	120	1967	826	005		3576	15	27	3	4		X4	X	9	0005					
						27	505	090	061	057	5	14																	
MESSNGR TIME HR 1/10	CASI NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO ₂ -N $\mu g - \mu l/l$	NO ₃ -N $\mu g - \mu l/l$	Si O ₄ -Si $\mu g - \mu l/l$	pH	S C												
		STD	0000	0667	3470	2725	0008312	0000	14774																				
120		OBS	0000	0667	34700	2725			14774																				
		STD	0010	0636	3471	2730	0007844	0008	14763																				
		STD	0020	0603	3472	2735	0007361	0016	14752																				
120		OBS	0025	0586	34730	2738			14746																				
		STD	0030	0565	3473	2741	0006851	0023	14738																				
		STD	0050	0491	3475	2751	0005926	0036	14711																				
120		OBS	0051	0488	34748	2751			14710																				
		STD	0075	0414	3479	2763	0004811	0049	14684																				
		STD	0100	0366	3481	2769	0004205	0060	14668																				
120		OBS	0101	0365	34815	2770			14668																				
		STD	0125	0365	3483	2771	0004100	0071	14672																				
		STD	0150	0364	3484	2771	0004042	0081	14676																				
120		OBS	0152	0364	34836	2771			14676																				
		STD	0200	0368	3485	2772	0004010	0101	14686																				
120		OBS	T0205	0368	34851	2772			14687																				
		STD	0250	0373	3486	2772	0004030	0121	14696																				
120		OBS	0255	0373	34864	2773			14697																				
		STD	0300	0369	3486	2773	0004031	0141	14703																				
120		OBS	0306	0368	34860	2773			14704																				
		STD	0400	0359	3485	2773	0004063	0182	14715																				
120		OBS	T0405	0358	34854	2773			14716																				
		STD	0500	0357	3486	2774	0004112	0223	14731																				
120		OBS	0508	0357	34857	2774			14732																				
		STD	0600	0357	3486	2774	0004174	0264	14748																				
120		OBS	T0612	0357																									
		STD	0700	0358	3486	2774	0004268	0306	14765																				
		STD	0800	0359	3486	2774	0004364	0349	14782																				
120		OBS	0814	0359	34862	2774			14784																				
		STD	0900	0357	3487	2775	0004346	0393	14798																				
		STD	1000	0354	3487	2775	0004395	0437	14813																				
120		OBS	T1020	0353	34872	2775			14816																				
		STD	1100	0354	3488	2776	0004403	0481	14830																				
		STD	1200	0354	3488	2776	0004493	0525	14847																				
		STD	1300	0355	3489	2777	0004511	0570	14864																				
		STD	1400	0356	3489	2777	0004601	0616	14881																				
		STD	1500	0357	3489	2776	0004691	0662	14899																				
120		OBS	T1520	0357	34895	2777			14902																				

REFERENCE		SHIP		LATITUDE		LONGITUDE		DEPTH METER	MARS SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.	SHIP CODE		1/10		1/10			10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT PER	SIA	TYPE		AMT		
311092	55		5634	N	05102	W		186	61	07	05	123	1967	826	006		3566	15	34	2	4		X1	3	5	0006
									WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
									COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB												
												35	512	126	067	051	7	14								
MESSAGE TIME HR. 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	SC									
		STD	0000	0686	3473	2724	0008371	0000	14781																	
123		OBS	0000	0686	34725	2724			14781																	
		STD	0010	0627	3473	2732	0007627	0008	14760																	
123		OBS	0018	0591	34726	2737			14747																	
		STD	0020	0589	3473	2737	0007146	0015	14746																	
		STD	0030	0575	3474	2740	0006917	0022	14742																	
123		OBS	0048	0538	34764	2746			14731																	
		STD	0050	0528	3477	2748	0006170	0036	14727																	
		STD	0075	0423	3481	2763	0004754	0049	14688																	
123		OBS	0097	0366	34832	2771			14668																	
		STD	0100	0365	3483	2771	0004023	0060	14668																	
		STD	0125	0361	3484	2772	0003953	0070	14671																	
123		OBS	0145	0359	34846	2773			14673																	
		STD	0150	0359	3485	2773	0003911	0080	14674																	
123		OBS	T0197	0357	34848	2773			14681																	
		STD	0200	0357	3485	2773	0003920	0100	14681																	
123		OBS	0243	0356	34850	2773			14688																	
		STD	0250	0356	3485	2773	0003939	0119	14689																	
123		OBS	0291	0357	34853	2773			14696																	
		STD	0300	0357	3485	2773	0003969	0139	14698																	
123		OBS	T0388	0357	34852	2773			14712																	
		STD	0400	0359	3485	2773	0004083	0179	14715																	
123		OBS	0485	0365	34853	2773			14732																	
		STD	0500	0363	3485	2773	0004197	0221	14734																	
123		OBS	T0586	0356	34857	2774			14745																	
		STD	0600	0356	3486	2774	0004163	0262	14747																	
		STD	0700	0355	3486	2774	0004236	0304	14763																	
123		OBS	0779	0354	34861	2774			14776																	
		STD	0800	0354	3486	2775	0004291	0347	14780																	
		STD	0900	0353	3487	2775	0004325	0390	14796																	
123		OBS	T0969	0352	34870	2775			14807																	
		STD	1000	0352	3487	2775	0004372	0434	14813																	
		STD	1100	0353	3488	2776	0004427	0478	14830																	
		STD	1200	0354	3488	2776	0004491	0522	14847																	
		STD	1300	0355	3489	2776	0004546	0567	14864																	
		STD	1400	0356	3489	2776	0004608	0613	14881																	
		STD	1500	0357	3489	2777	0004665	0660	14899																	
123		OBS	T1502	0357	34894	2777			14899																	

REFERENCE		SNIP CODE	LATITUDE ° ' 10	LONGITUDE ° ' 10	DEPTH FATHOMS	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CRUISE CODE	ID NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
311092	S5		5630 N	05101 W		186	61	07	06	205	1967	826	007	3630	16	29	2	4		X1	6	6	0007
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE	mbars		DRY BULB	WET BULB														
								29		S20	189	093	071	7	14								
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta O$ OYN. M. $\times 10^3$		SOUND VELOCITY		O ₂ ml/l	PO ₄ -P $\mu g - \text{ml/l}$	TOTAL-P $\mu g - \text{ml/l}$	NO ₃ -N $\mu g - \text{ml/l}$	NO ₃ -N $\mu g - \text{ml/l}$	SiO ₄ -Si $\mu g - \text{ml/l}$	pH	S C		
		STD	0000	0703	3472	2721		0008661		0000		14788											
205		OBS	0000	0703	34716	2721						14788											
		STD	0010	0683	3472	2724		0008385		0009		14782											
		STD	0020	0656	3472	2728		0008052		0017		14773											
205		OBS	0028	0629	34724	2732						14763											
		STD	0030	0618	3473	2734		0007515		0025		14759											
		STD	0050	0523	3475	2747		0006262		0038		14725											
205		OBS	0054	0507	34755	2749						14719											
		STD	0075	0444	3478	2759		0005199		0053		14696											
		STD	0100	0389	3481	2767		0004432		0065		14678											
205		OBS	0109	0375	34815	2769						14674											
		STD	0125	0366	3482	2770		0004152		0075		14672											
		STD	0150	0356	3482	2771		0004077		0086		14672											
205		OBS	0163	0353	34824	2772						14673											
		STD	0200	0356	3483	2772		0004045		0106		14681											
205		OBS	0219	0357	34838	2772						14684											
		STD	0250	0356	3484	2773		0004017		0126		14689											
205		OBS	0273	0356	34847	2773						14693											
		STD	0300	0358	3485	2773		0004002		0146		14698											
205		OBS	0328	0360	34858	2774						14704											
		STD	0400	0357	3486	2774		0003973		0186		14715											
205		OBS	T0440	0356	34868	2775						14721											
		STD	0500	0357	3487	2775		0004017		0226		14731											
205		OBS	0544	0357	34870	2775						14739											
		STD	0600	0357	3487	2775		0004084		0267		14748											
205		OBS	T0653	0357	34873	2775						14757											
		STD	0700	0355	3487	2775		0004147		0308		14764											
		STD	0800	0353	3487	2775		0004216		0349		14779											
205		OBS	0866	0352	34870	2775						14790											
		STD	0900	0352	3487	2775		0004289		0392		14796											
		STD	1000	0353	3487	2775		0004362		0435		14813											
205		OBS	T1066	0353	34874	2776						14824											
		STD	1100	0353	3488	2776		0004435		0479		14830											
		STD	1200	0354	3488	2776		0004500		0524		14847											
		STD	1300	0354	3488	2776		0004558		0569		14864											
		STD	1400	0355	3489	2776		0004624		0615		14881											
		STD	1500	0355	3489	2776		0004688		0662		14898											
205		OBS	T1607	0356	34892	2777						14916											

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	OBS INDIC	MARS DEN SQUARE		STATION TIME IGMTI			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLDUD CODES		NODC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR,1/10		CRUISE NO.	STATION NUMBER			OBSERVATIONS					TYPE	AMT			
																DIR	HGT	PER	SEA						
311092	55		56298N	05055 W		186	60	07	07	206	1967	B26	008		3630	15	33	2	4		X1	0	6		0008
						WATER		WIND		BARO- METER (mbs)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB												
									30	506	172	091	072	7	14										
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PD ₄ -P μg - ol/l	TOTAL-P μg - ol/l	ND ₃ -N μg - ol/l	ND ₃ -N μg - ol/l	Si O ₄ -Si μg - ol/l	pH	S C								
		STD	0000	0765	3471	2712	0009524	0000	14812																
205		OBS	0000	0765	34713	2712			14812																
		STD	0010	0730	3472	2717	0009039	0009	14800																
		STD	0020	0692	3472	2723	0008526	0018	14787																
205		OBS	0024	0675	34720	2725			14781																
		STD	0030	0645	3473	2730	0007853	0026	14770																
		STD	0050	0553	3477	2745	0006489	0041	14737																
205		OBS	0050	0553	34766	2745			14737																
		STD	0075	0446	3482	2762	0004920	0055	14698																
205		OBS	0099	0381	34846	2771			14675																
		STD	0100	0381	3485	2771	0004082	0066	14675																
		STD	0125	0371	3485	2772	0004006	0076	14675																
205		OBS	0149	0365	34845	2772			14676																
		STD	0150	0365	3485	2772	0003977	0086	14676																
		STD	0200	0361	3485	2772	0003982	0106	14683																
205		OBS	0200	0361	34845	2772			14683																
		STD	0250	0362	3485	2773	0003998	0126	14692																
205		OBS	0251	0362	34853	2773			14692																
		STD	0300	0358	3485	2773	0003988	0146	14698																
205		OBS	0301	0358	34852	2773			14698																
205		OBS	T0398	0358	34864	2774			14715																
		STD	0400	0358	3486	2774	0004013	0186	14715																
		STD	0500	0355	3486	2774	0004069	0226	14730																
205		OBS	0502	0355	34859	2774			14731																
		STD	0600	0354	3486	2774	0004142	0267	14746																
205		OBS	T0606	0354	34862	2774			14747																
		STD	0700	0353	3486	2775	0004180	0309	14763																
		STD	0800	0351	3487	2775	0004232	0351	14779																
205		OBS	0805	0351	34866	2775			14779																
		STD	0900	0352	3487	2775	0004281	0394	14795																
		STD	1000	0352	3488	2776	0004324	0437	14812																
205		OBS	T1003	0352	34877	2776			14813																
		STD	1100	0353	3488	2776	0004395	0480	14830																
		STD	1200	0353	3489	2777	0004403	0524	14847																
		STD	1300	0354	3489	2777	0004496	0569	14864																
		STD	1400	0355	3489	2777	0004589	0614	14881																
		STD	1500	0356	3489	2777	0004681	0661	14898																
205		OBS	T1510	0356	34895	2777			14900																

REFERENCE		SNIP CODE	LATITUDE 1/10	LONGITUDE 1/10	HAUSDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER									
CTRY CODE	ID. NO.					10"	1"	MO		DAY	HR.1/10			CRUISE NO.	STATION NUMBER			DIR.	HGT		PER	SEA	TYPE	AMT					
311092		55	56315N	05052 W	186	60	07	08	203	1967	B26	009	3630	14	34	2	4		X1	8	6	0009							
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS															
		COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB								
						29	S10	134	083	068	7	14																	
MESSAGE TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	SC												
		STD	0000	0775	3474	2713	0009477	0000	14816																				
203		OBS	0000	0775	34738	2713			14816																				
		STD	0010	0728	3473	2719	0008900	0009	14800																				
		STD	0020	0681	3472	2725	0008345	0018	14783																				
203		OBS	0023	0667	34722	2727			14778																				
		STD	0030	0633	3473	2731	0007731	0026	14765																				
203		OBS	0047	0555	34735	2742			14737																				
		STD	0050	0538	3474	2745	0006509	0040	14731																				
		STD	0075	0427	3481	2763	0004795	0054	14690																				
203		OBS	0094	0375	34842	2771			14671																				
		STD	0100	0374	3484	2771	0004043	0065	14672																				
		STD	0125	0370	3484	2771	0004011	0075	14674																				
203		OBS	0142	0368	34845	2772			14676																				
		STD	0150	0367	3485	2772	0003989	0085	14677																				
203		OBS	T0188	0363	34849	2773			14682																				
		STD	0200	0361	3485	2773	0003952	0105	14683																				
203		OBS	0236	0358	34848	2773			14688																				
		STD	0250	0357	3485	2773	0003963	0125	14690																				
203		OBS	0284	0356	34847	2773			14695																				
		STD	0300	0357	3485	2773	0003992	0145	14698																				
203		OBS	T0372	0358	34852	2773			14710																				
		STD	0400	0357	3485	2773	0004055	0185	14714																				
203		OBS	0468	0355	34854	2774			14725																				
		STD	0500	0356	3486	2774	0004115	0226	14731																				
203		OBS	T0563	0357	34858	2774			14742																				
		STD	0600	0356	3486	2774	0004163	0267	14747																				
		STD	0700	0353	3486	2774	0004214	0309	14763																				
203		OBS	0742	0352	34862	2775			14769																				
		STD	0800	0352	3487	2775	0004209	0351	14779																				
		STD	0900	0351	3487	2775	0004285	0394	14795																				
203		OBS	T0928	0351	34872	2776			14800																				
		STD	1000	0352	3487	2776	0004347	0437	14812																				
		STD	1100	0353	3488	2776	0004415	0481	14830																				
		STD	1200	0355	3488	2776	0004492	0525	14847																				
		STD	1300	0356	3488	2776	0004568	0571	14865																				
		STD	1400	0358	3489	2776	0004644	0617	14882																				
203		OBS	T1421	0358	34888	2776			14886																				

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	HARDEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10°	1°		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

311092	S5	5634 N	05101 W	186	61	07	09	203	1967	826	010	3658	15	32	1	5	X1	6	2	0010
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WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		27	503	172	094	078	7	14	
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MESSENGER TIME HR 1/10	CASE NO.	CASE TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ ρ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₂ -Si μg - dl/l	pH	S C
		STD	0000	0749	3469	2713	0009474	0000	14806								
		OBS	0000	0749	34690	2713			14806								
		STD	0010	0711	3473	2721	0008680	0009	14793								
		STD	0020	0668	3475	2729	0007982	0017	14778								
		OBS	0025	0644	34760	2733			14769								
		STD	0030	0613	3476	2737	0007214	0025	14758								
		STD	0050	0506	3477	2751	0005935	0038	14718								
		OBS	0051	0501	34768	2751			14716								
		STD	0075	0417	3480	2763	0004767	0052	14685								
		STD	0100	0362	3482	2770	0004091	0063	14667								
		OBS	0101	0361	34824	2771			14666								
		STD	0125	0361	3483	2771	0004028	0073	14670								
		STD	0150	0361	3484	2772	0003975	0083	14675								
		OBS	0152	0361	34843	2772			14675								
		STD	0200	0361	3486	2773	0003884	0102	14683								
		OBS	T0203	0361	34859	2774			14684								
		STD	0250	0361	3486	2773	0003943	0122	14691								
		OBS	0254	0361	34856	2773			14692								
		STD	0300	0360	3486	2773	0003985	0142	14699								
		OBS	0305	0360	34855	2773			14700								
		STD	0400	0358	3486	2774	0004014	0182	14715								
		OBS	0406	0358	34863	2774			14716								
		STD	0500	0355	3486	2774	0004047	0222	14730								
		OBS	0507	0355	34863	2774			14731								
		STD	0600	0355	3486	2774	0004145	0263	14747								
		OBS	T0615	0355	34860	2774			14749								
		STD	0700	0355	3486	2774	0004217	0305	14763								
		STD	0800	0354	3486	2775	0004280	0347	14780								
		OBS	0812	0354	34864	2775			14782								
		STD	0900	0354	3487	2775	0004317	0390	14797								
		STD	1000	0354	3488	2776	0004355	0434	14813								
		OBS	T1018	0354	34877	2776			14816								
		STD	1100	0354	3488	2776	0004411	0478	14830								
		STD	1200	0355	3489	2777	0004423	0522	14847								
		STD	1300	0355	3489	2777	0004509	0566	14864								
		STD	1400	0356	3489	2777	0004595	0612	14881								
		STD	1500	0356	3489	2777	0004680	0658	14898								
		OBS	T1523	0356	34892	2777			14902								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S' MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MD	DAY	HR. 1/10	CRUISE NO.	STATION NUMBER			DR.	NGT	PER	SEA	TYPE	AMT	

311092	S5	5633 N	05048 W			186	60	07	10	210	1967	826 011	3749	15	16	4	3		X2	6	8	0011
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WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		16	S18	146	089	083	7	14	

		16	S18	146	089	083	7	14	
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MESSENGER TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	Si O ₄ -Si µg - at/l	pH	SIC CC
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	STD	0000	0756	3476	2717	0009064	0000	14809									
210	OBS	0000	0756	34758	2717			14809									
	STD	0010	0715	3476	2723	0008524	0009	14795									
	STD	0020	0666	3476	2730	0007890	0017	14777									
210	OBS	0025	0639	34759	2733			14767									
	STD	0030	0598	3476	2739	0007045	0024	14752									
	STD	0050	0470	3479	2756	0005374	0037	14703									
210	OBS	0051	0465	34791	2757			14701									
	STD	0075	0429	3485	2766	0004516	0049	14691									
	STD	0100	0398	3487	2771	0004073	0060	14683									
210	OBS	0101	0397	34875	2771			14682									
	STD	0125	0374	3485	2772	0004006	0070	14676									
	STD	0150	0356	3484	2772	0003946	0080	14673									
210	OBS	0152	0357	34839	2772			14673									
	STD	0200	0355	3484	2773	0003962	0100	14680									
210	OBS	T0205	0355	34845	2773			14681									
	STD	0250	0363	3486	2773	0003974	0120	14692									
210	OBS	0254	0364	34856	2773			14693									
	STD	0300	0359	3485	2773	0003993	0140	14699									
210	OBS	0304	0359	34853	2773			14699									
	STD	0400	0357	3485	2773	0004079	0180	14714									
210	OBS	T0404	0357	34848	2773			14715									
	STD	0500	0358	3486	2774	0004129	0221	14731									
210	OBS	0504	0358	34856	2774			14732									
	STD	0600	0356	3485	2774	0004209	0263	14747									
210	OBS	0604	0356	34854	2774			14748									
	STD	0700	0355	3486	2774	0004267	0305	14763									
	STD	0800	0354	3486	2774	0004317	0348	14780									
210	OBS	0805	0354	34859	2774			14781									
	STD	0900	0353	3486	2774	0004381	0391	14796									
	STD	1000	0352	3486	2775	0004451	0436	14812									
210	OBS	1006	0352	34862	2775			14813									
	STD	1100	0353	3487	2775	0004490	0480	14829									
	STD	1200	0354	3487	2775	0004554	0526	14847									
	STD	1300	0355	3488	2776	0004610	0571	14864									
	STD	1400	0356	3488	2776	0004666	0618	14881									
	STD	1500	0357	3489	2776	0004722	0665	14899									
210	OBS	T1505	0357	34886	2776			14900									

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS. INDEX	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	1092	S5	5630 N	05103 W		186	61	07	11	207	1967	826	012	3566	15	16	5	3		X5	7	8	0012

WATER		WIND		BARD- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
			09	521	045	084	084	6	14

MESSENGER TIME OF HR 1/10	CAS- T NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SIO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	Σ C
		STD	0000	0743	3473	2717	0009065	0000	14804								
		OBS	0000	0743	34734	2717			14804								
		STD	0010	0722	3474	2720	0008752	0009	14797								
		STD	0020	0689	3474	2725	0008330	0017	14786								
		OBS	0025	0668	34747	2728			14779								
		STD	0030	0633	3475	2733	0007552	0025	14766								
		STD	0050	0514	3477	2750	0006010	0039	14721								
		OBS	0051	0509	34771	2750			14719								
		STD	0075	0422	3481	2763	0004743	0052	14688								
		STD	0100	0366	3484	2772	0003980	0063	14669								
		OBS	0101	0365	34845	2772			14668								
		STD	0125	0367	3485	2772	0003940	0073	14673								
		STD	0150	0370	3485	2772	0003986	0083	14679								
		OBS	0153	0370	34855	2772			14679								
		STD	0200	0360	3485	2773	0003923	0103	14683								
		OBS	T0202	0360	34852	2773			14683								
		STD	0250	0357	3485	2774	0003921	0122	14690								
		OBS	0255	0357	34854	2774			14691								
		STD	0300	0356	3486	2774	0003945	0142	14698								
		OBS	0306	0356	34855	2774			14699								
		STD	0400	0355	3487	2775	0003938	0182	14714								
		OBS	T0410	0355	34867	2775			14715								
		STD	0500	0357	3487	2775	0004020	0221	14731								
		OBS	0507	0357	34869	2775			14732								
		STD	0600	0360	3488	2775	0004055	0262	14749								
		OBS	T0608	0360	34882	2775			14751								
		STD	0700	0357	3488	2776	0004100	0303	14765								
		STD	0800	0353	3488	2776	0004152	0344	14780								
		OBS	0809	0353	34880	2776			14781								
		STD	0900	0354	3488	2776	0004230	0386	14796								
		STD	1000	0354	3488	2776	0004303	0428	14813								
		OBS	1008	0354	34883	2776			14815								
		STD	1100	0354	3489	2777	0004338	0472	14830								
		STD	1200	0355	3489	2777	0004425	0515	14847								
		STD	1300	0355	3489	2777	0004511	0560	14864								
		STD	1400	0356	3490	2777	0004523	0605	14881								
		OBS	T1496	0356	34907	2778			14898								

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DRIFT INCHES 10° 1°	MARS DEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10°	1°	MO	DAY		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
311	092	S5	5631 N	05103 W		186	61	07	12	216	1967	826	013	3658	14	05	5	4		X2	7	8	0013

WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		03	S22	136	084	078	7	14	

MESSNGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S CCT
		STD	0000	0741	3475	2718											
216		OBS	0000	0741	34746	2718	0008948	0000	14803								
		STD	0010	0740	3475	2719	0008919	0009	14804								
		STD	0020	0739	3475	2719	0008919	0018	14806								
216		OBS	0025	0738	34754	2719			14806								
		STD	0030	0697	3475	2725	0008377	0027	14791								
		STD	0050	0559	3475	2743	0006694	0042	14739								
216		OBS	0050	0559	34748	2743			14739								
		STD	0075	0458	3480	2759	0005198	0056	14703								
		STD	0100	0392	3484	2768	0004275	0068	14679								
216		OBS	0100	0392	34835	2768			14679								
		STD	0125	0376	3484	2771	0004101	0079	14677								
		STD	0150	0366	3485	2772	0003979	0089	14677								
216		OBS	0150	0366	34846	2772			14677								
		STD	0200	0361	3485	2773	0003945	0109	14683								
216		OBS	T0201	0361	34854	2773			14683								
216		OBS	0249	0356	34856	2774			14689								
		STD	0250	0356	3486	2774	0003893	0128	14689								
216		OBS	0296	0355	34854	2774			14696								
		STD	0300	0355	3485	2774	0003941	0148	14697								
216		OBS	0386	0352	34854	2774			14710								
		STD	0400	0352	3485	2774	0003999	0188	14712								
216		OBS	0473	0354	34854	2774			14725								
		STD	0500	0354	3486	2774	0004057	0228	14730								
216		OBS	T0562	0354	34866	2775			14740								
		STD	0600	0354	3487	2775	0004078	0268	14746								
		STD	0700	0353	3487	2776	0004105	0309	14763								
216		OBS	0742	0352	34877	2776			14769								
		STD	0800	0352	3488	2776	0004157	0351	14779								
		STD	0900	0351	3488	2776	0004233	0393	14795								
216		OBS	0930	0351	34877	2776			14800								
		STD	1000	0352	3488	2776	0004302	0435	14812								
		STD	1100	0353	3488	2776	0004400	0479	14830								
		STD	1200	0355	3488	2776	0004499	0523	14847								
		STD	1300	0356	3488	2776	0004598	0569	14865								
		STD	1400	0358	3488	2776	0004697	0615	14882								
216		OBS	T1417	0358	34880	2776			14885								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
311	092	S5	5632 N	05055 W		186	60	07	13	219	1967	826	014	3658	15	06	6	4		X2	7	8	0014
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB														
					07	S08	154	094	083	7	14												
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107	Σ Δ D DTN, M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P μg - at/l	TOTAL-P μg - at/l	ND ₂ -N μg - at/l	ND ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C						
		STD	0000	0716	3467	2715	0009207	0400	14792														
219		OBS	0000	0716	34666	2715			14792														
		STD	0010	0702	3467	2718	0009007	0009	14789														
		STD	0020	0688	3468	2720	0008764	0018	14765														
219		OBS	0025	0681	34682	2722			14783														
		STD	0030	0629	3469	2729	0007950	0026	14763														
		STD	0050	0467	3474	2753	0005717	0040	14701														
219		OBS	0051	0461	34747	2754			14699														
		STD	0075	0426	3482	2764	0004710	0053	14689														
		STD	0100	0401	3486	2770	0004178	0064	14684														
219		OBS	0102	0400	34866	2770			14684														
		STD	0125	0395	3487	2771	0004059	0074	14685														
		STD	0150	0390	3488	2772	0003987	0085	14687														
219		OBS	0153	0389	34878	2772			14688														
		STD	0200	0375	3487	2773	0003912	0104	14689														
219		OBS	T0205	0374	34872	2773			14690														
		STD	0250	0368	3487	2773	0003946	0124	14694														
219		OBS	0256	0367	34864	2773			14695														
		STD	0300	0365	3466	2774	0003971	0144	14702														
219		OBS	0308	0365	34864	2774			14703														
		STD	0400	0359	3486	2774	0004021	0184	14715														
219		OBS	0410	0358	34860	2774			14717														
		STD	0500	0357	3486	2774	0004075	0224	14731														
219		OBS	0512	0357	34862	2774			14733														
		STD	0600	0356	3487	2775	0004119	0265	14747														
219		OBS	0614	0356	34867	2775			14750														
		STD	0700	0356	3487	2775	0004177	0307	14764														
		STD	0800	0357	3488	2776	0004193	0348	14781														
219		OBS	0815	0357	34881	2776			14784														
		STD	0900	0355	3489	2776	0004221	0391	14797														
		STD	1000	0353	3489	2777	0004251	0433	14813														
219		OBS	T1014	0353	34890	2777			14815														
		STD	1100	0354	3490	2777	0004297	0476	14830														
		STD	1200	0355	3490	2777	0004357	0519	14848														
		STD	1300	0357	3491	2778	0004416	0563	14865														
		STD	1400	0358	3491	2778	0004476	0607	14882														
		STD	1500	0359	3492	2778	0004528	0652	14900														
219		OBS	T1507	0359	34916	2778			14901														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DAFT INDEX	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
311	092	55	56285N	05058 W		186	60	07	14	205	1967	826 015	3658	15	Q6	2	3		X2	6	8	0015	
						WATER		WIND		BARD- METER		AIR TEMP. °C		VIR CODE	ND. DPS. DEPTH	SPECIAL OBSERVATIONS							
COLOR CODE		TRANS. (m)		DIR.	SPEED OR FORCE	DRY BULB		WET BULB															
						15		S05		174		094 086		7 14									
MESSENGER TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t ?		Σ Δ D DYN. M. x 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	SS C			
		STD	0000	0757	3466	2709		0009808		0000		14808											
205		OBS	0000	0757	34660	2709						14808											
		STD	0010	0723	3466	2714		0009391		0010		14797											
		STD	0020	0678	3465	2720		0008843		0019		14781											
205		OBS	0024	0658	34650	2722						14773											
		STD	0030	0612	3466	2729		0007963		0027		14756											
205		OBS	0049	0495	34705	2747						14712											
		STD	0050	0492	3471	2748		0006214		0041		14711											
		STD	0075	0434	3482	2763		0004793		0055		14693											
205		OBS	0097	0401	34880	2771						14683											
		STD	0100	0400	3488	2771		0004018		0066		14683											
		STD	0125	0393	3488	2772		0003948		0076		14685											
205		OBS	0147	0387	34885	2773						14686											
		STD	0150	0386	3489	2773		0003887		0086		14686											
205		OBS	T0196	0376	34885	2774						14689											
		STD	0200	0375	3488	2774		0003860		0105		14689											
205		OBS	0246	0372	34870	2773						14696											
		STD	0250	0373	3487	2773		0003952		0125		14697											
205		OBS	0295	0375	34883	2774						14705											
		STD	0300	0374	3488	2774		0003940		0144		14705											
205		OBS	T0393	0359	34867	2774						14714											
		STD	0400	0359	3487	2774		0003980		0184		14716											
205		OBS	0491	0360	34858	2774						14731											
		STD	0500	0360	3486	2774		0004135		0225		14732											
205		OBS	0590	0357	34857	2774						14746											
		STD	0600	0357	3486	2774		0004175		0266		14748											
		STD	0700	0358	3486	2774		0004265		0308		14765											
205		OBS	0788	0358	34865	2774						14779											
		STD	0800	0357	3487	2774		0004305		0351		14781											
		STD	0900	0353	3487	2775		0004335		0394		14796											
205		OBS	0985	0350	34866	2775						14809											
		STD	1000	0350	3487	2776		0004355		0438		14812											
		STD	1100	0352	3487	2775		0004456		0482		14829											
		STD	1200	0354	3487	2775		0004556		0527		14846											
		STD	1300	0355	3488	2776		0004583		0573		14864											
		STD	1400	0357	3488	2776		0004683		0619		14882											
205		OBS	T1480	0358	34890	2776						14896											

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH 1000 FATHOMS	MARSOEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER			
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT	
311	092	S5	5629 N	05057 W		186	60	07	15	202	1967	B26	016	3566	15	09	3	5		X4	X	9		0016
						WATER		WIND		BARO- METER (mbars)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB											
									17	S13	119	086	086	5	14									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ σ DTN, M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C							
		STD	0000	0703	3464	2715	0009221	0000	14787															
202		OBS	0000	0703	34641	2715			14787															
		STD	0010	0687	3464	2718	0009004	0009	14782															
		STD	0020	0657	3465	2722	0008610	0018	14772															
202		OBS	0026	0632	34649	2726			14763															
		STD	0030	0601	3466	2730	0007829	0026	14752															
		STD	0050	0478	3472	2750	0005986	0040	14706															
202		OBS	0052	0469	34724	2751			14702															
		STD	0075	0436	3482	2763	0004814	0053	14694															
		STD	0100	0412	3488	2770	0004140	0065	14689															
202		OBS	0103	0410	34888	2771			14688															
		STD	0125	0409	3489	2771	0004090	0075	14691															
		STD	0150	0405	3488	2771	0004096	0085	14694															
202		OBS	0155	0404	34882	2771			14694															
		STD	0200	0386	3487	2772	0004024	0105	14694															
202		OBS	T0208	0384	34871	2772			14694															
		STD	0250	0376	3487	2773	0003983	0125	14698															
202		OBS	0258	0375	34871	2773			14699															
		STD	0300	0373	3487	2773	0003998	0145	14705															
202		OBS	0310	0372	34871	2773			14706															
		STD	0400	0363	3487	2774	0003990	0185	14717															
202		OBS	T0410	0362	34870	2774			14718															
		STD	0500	0359	3486	2774	0004083	0226	14732															
202		OBS	0517	0358	34862	2774			14734															
		STD	0600	0359	3487	2774	0004149	0267	14749															
202		OBS	T0620	0359	34867	2774			14752															
		STD	0700	0359	3487	2774	0004221	0309	14765															
		STD	0800	0359	3487	2775	0004298	0351	14782															
202		OBS	0825	0359	34869	2775			14786															
		STD	0900	0358	3487	2775	0004335	0395	14798															
		STD	1000	0356	3488	2776	0004359	0438	14814															
202		OBS	T1030	0355	34879	2776			14819															
		STD	1100	0355	3488	2776	0004423	0482	14831															
		STD	1200	0356	3489	2777	0004436	0526	14848															
		STD	1300	0356	3489	2777	0004520	0571	14865															
		STD	1400	0356	3489	2776	0004606	0617	14882															
		STD	1500	0357	3489	2776	0004691	0663	14899															
202		OBS	T1546	0357	34896	2777			14907															

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH FATHOMS	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT.	PER		TYPE	AMT	
311	092	S5	5631 N	05103 W		186	61	07	16	202	1967	B26	017	3566	15	16	2	2	X1	8	5	0017
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB													
					17	S05	131	094	068	7	14											
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210?	Σ Δ O DTN. AL. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CC					
		STD	0000	0754	3463	2707	0009990	0000	14807													
202		OBS	0000	0754	34630	2707			14807													
		STD	0010	0749	3463	2708	0009916	0010	14806													
		STD	0020	0715	3464	2713	0009450	0020	14795													
202		OBS	0025	0686	34638	2717			14784													
		STD	0030	0623	3468	2729	0007950	0028	14761													
		STD	0050	0431	3480	2762	0004878	0041	14687													
202		OBS	0050	0431	34801	2762			14687													
		STD	0075	0403	3484	2768	0004324	0053	14680													
		STD	0100	0387	3487	2772	0003977	0063	14678													
202		OBS	0100	0387	34868	2772			14678													
		STD	0125	0388	3488	2773	0003915	0073	14682													
202		OBS	0149	0388	34887	2773			14687													
		STD	0150	0388	3489	2773	0003892	0083	14687													
202		OBS	T0199	0376	34882	2774			14690													
		STD	0200	0376	3488	2774	0003855	0102	14690													
		STD	0250	0378	3488	2774	0003906	0121	14699													
202		OBS	0250	0378	34884	2774			14699													
		STD	0300	0372	3488	2774	0003927	0141	14705													
202		OBS	0300	0372	34879	2774			14705													
202		OBS	T0395	0368	34880	2775			14719													
		STD	0400	0368	3488	2775	0003968	0180	14719													
202		OBS	0497	0366	34879	2775			14735													
		STD	0500	0366	3488	2775	0004043	0221	14735													
202		OBS	T0598	0367	34880	2775			14752													
		STD	0600	0367	3488	2775	0004133	0261	14752													
		STD	0700	0362	3488	2775	0004165	0303	14767													
202		OBS	0792	0359	34876	2775			14781													
		STD	0800	0359	3488	2775	0004246	0345	14782													
		STD	0900	0359	3488	2775	0004330	0388	14799													
202		OBS	T0987	0359	34875	2775			14813													
		STD	1000	0359	3488	2775	0004384	0431	14815													
		STD	1100	0359	3488	2775	0004469	0476	14832													
		STD	1200	0359	3488	2775	0004554	0521	14849													
		STD	1300	0360	3488	2775	0004638	0567	14866													
		STD	1400	0360	3488	2775	0004722	0614	14883													
		STD	1500	0360	3489	2776	0004731	0661	14900													
202		OBS	T1527	0360	34891	2776			14905													

REFERENCE CTRY CODE	IO, NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT INCHES	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

311092	S5	5627 N	05058 W	186	60	07	17	202	1967	826	018	3506	14	34	3	3				X2	7	8	0018
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WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
			31	508	432	078	072	7	14

MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S CC
		STD	0000	0758	3462	2706	0010104	0000	14808								
202		OBS	0000	0758	34622	2706			14808								
		STD	0010	0732	3463	2710	0009714	0010	14800								
		STD	0020	0691	3464	2717	0009124	0019	14786								
202		OBS	0023	0676	34639	2719			14780								
		STD	0030	0619	3466	2728	0008050	0028	14759								
202		OBS	0046	0513	34702	2745			14719								
		STD	0050	0499	3472	2748	0006217	0042	14714								
		STD	0075	0431	3483	2764	0004687	0056	14692								
202		OBS	0091	0404	34873	2770			14684								
		STD	0100	0403	3488	2771	0004048	0067	14685								
		STD	0125	0399	3488	2771	0004032	0077	14687								
202		OBS	0137	0396	34883	2772			14688								
		STD	0150	0390	3488	2772	0003965	0087	14687								
202		OBS	T0185	0378	34877	2773			14688								
		STD	0200	0376	3488	2773	0003900	0106	14690								
202		OBS	0229	0374	34874	2773			14694								
		STD	0250	0373	3487	2774	0003930	0126	14697								
202		OBS	0276	0372	34875	2774			14701								
		STD	0300	0371	3488	2774	0003940	0146	14704								
202		OBS	T0368	0368	34877	2774			14714								
		STD	0400	0365	3488	2774	0003974	0185	14718								
202		OBS	0460	0362	34871	2774			14727								
		STD	0500	0361	3487	2775	0004041	0225	14733								
202		OBS	T0558	0360	34874	2775			14742								
		STD	0600	0359	3487	2775	0004094	0266	14749								
		STD	0700	0358	3487	2775	0004161	0307	14765								
202		OBS	0738	0357	34874	2775			14771								
		STD	0800	0357	3488	2775	0004228	0349	14781								
		STD	0900	0356	3488	2775	0004289	0392	14797								
202		OBS	T0926	0356	34878	2776			14802								
		STD	1000	0357	3488	2776	0004347	0435	14814								
		STD	1100	0357	3488	2776	0004415	0479	14831								
		STD	1200	0358	3489	2776	0004474	0523	14849								
		STD	1300	0358	3489	2776	0004534	0568	14866								
		STD	1400	0359	3490	2777	0004593	0614	14883								
202		OBS	T1413	0359	34896	2777			14885								

REFERENCE CTRY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	INSTR INSTR	MARSGEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
							10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

311092		55	56335N	05115 W		186	61	07	18	203	1967	826 019		3630	15	00	0	X		X5	7	8	0019
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WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		00	500	228	085	072	6	14	

MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	S CODE
		STD	0000	0841	3472	2701	0010578	0000	14841								
203		OBS	0000	0841	34717	2701			14841								
		STD	0010	0815	3472	2705	0010204	0010	14833								
		STD	0020	0771	3472	2712	0009575	0020	14818								
203		OBS	0026	0735	34723	2717			14805								
		STD	0030	0693	3474	2724	0008399	0029	14789								
		STD	0050	0520	3478	2750	0006004	0044	14724								
203		OBS	0051	0513	34787	2751			14721								
		STD	0075	0423	3481	2763	0004754	0057	14688								
		STD	0100	0365	3483	2771	0004045	0068	14668								
203		OBS	0102	0362	34834	2771			14667								
		STD	0125	0363	3484	2772	0003976	0078	14672								
		STD	0150	0365	3484	2772	0004013	0088	14676								
203		OBS	0154	0365	34843	2772			14677								
		STD	0200	0365	3485	2772	0003984	0108	14685								
203		OBS	T0207	0365	34854	2773			14686								
		STD	0250	0360	3485	2773	0003953	0128	14691								
203		OBS	0256	0359	34853	2773			14692								
		STD	0300	0359	3485	2773	0003989	0148	14699								
203		OBS	0307	0359	34853	2773			14700								
		STD	0400	0358	3487	2775	0003940	0187	14715								
203		OBS	T0404	0358	34871	2775			14716								
		STD	0500	0356	3487	2775	0004006	0227	14731								
203		OBS	0509	0356	34870	2775			14732								
		STD	0600	0356	3487	2775	0004081	0268	14747								
203		OBS	T0614	0356	34871	2775			14750								
		STD	0700	0355	3487	2775	0004144	0309	14764								
		STD	0800	0353	3487	2776	0004196	0350	14780								
203		OBS	0812	0353	34874	2776			14781								
		STD	0900	0353	3488	2776	0004227	0393	14796								
		STD	1000	0352	3489	2777	0004229	0435	14813								
203		OBS	T1022	0352	34894	2777			14816								
		STD	1100	0353	3490	2777	0004275	0477	14830								
		STD	1200	0354	3490	2777	0004346	0520	14847								
		STD	1300	0355	3490	2778	0004417	0564	14864								
		STD	1400	0356	3491	2778	0004488	0609	14882								
		STD	1500	0357	3491	2778	0004567	0654	14899								
203		OBS	T1519	0357	34908	2778			14902								

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DRIFT INCR	MARS SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
311092		55	5629 N	05056 W		188	60	07	19	202	1967	826	020	3566	14	19	3	2		X6	6	8	0020
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
									19	515	179	088	082	6	14								
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t °	Σ Δ D DYN. M. X 10 ³	SDUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	S C C						
		STD	0000	0790	3460	2700	0010699	0000	14820														
	202	OBS	0000	0790	34602	2700			14820														
		STD	0010	0764	3462	2705	0010241	0010	14812														
		STD	0020	0709	3463	2714	0009399	0020	14793														
	202	OBS	0022	0695	34635	2716			14787														
		STD	0030	0593	3470	2735	0007432	0029	14749														
	202	OBS	0045	0450	34802	2760			14694														
		STD	0050	0441	3481	2761	0004915	0041	14691														
		STD	0075	0405	3486	2769	0004194	0052	14681														
	202	OBS	0090	0392	34876	2772			14678														
		STD	0100	0391	3488	2772	0003927	0063	14680														
		STD	0125	0389	3488	2772	0003931	0072	14683														
	202	OBS	0135	0388	34884	2773			14684														
		STD	0150	0385	3489	2773	0003876	0082	14685														
	202	OBS	T0180	0381	34886	2774			14689														
		STD	0200	0379	3488	2773	0003900	0102	14691														
	202	OBS	0226	0376	34876	2773			14694														
		STD	0250	0372	3487	2774	0003920	0121	14696														
	202	OBS	0270	0370	34873	2774			14699														
		STD	0300	0369	3487	2774	0003934	0141	14703														
	202	OBS	T0358	0367	34876	2774			14712														
		STD	0400	0367	3487	2774	0004002	0180	14719														
	202	OBS	0449	0367	34872	2774			14727														
		STD	0500	0367	3487	2774	0004120	0221	14735														
	202	OBS	T0542	0367	34868	2774			14742														
		STD	0600	0367	3487	2774	0004208	0263	14752														
		STD	0700	0366	3487	2774	0004284	0305	14768														
	202	OBS	0721	0365	34874	2774			14771														
		STD	0800	0360	3487	2775	0004302	0348	14782														
	202	OBS	T0894	0355	34866	2775			14796														
		STD	0900	0355	3487	2775	0004358	0391	14797														
		STD	1000	0355	3487	2775	0004423	0435	14814														
		STD	1100	0356	3487	2775	0004495	0480	14831														
		STD	1200	0356	3487	2775	0004567	0525	14848														
		STD	1300	0357	3488	2775	0004631	0571	14865														
	202	OBS	T1392	0357	34878	2775			14880														

REFERENCE CTRY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS. INDIC.	MARSOEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
							10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	

311092		55	5627 N	05053 W		186 60	07	20	206	1967	B26	021	3566	15	34	4	3		X1	7	7	0021
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WATER			WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB			
			34	529	116	082	073	7	14	

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	Si O ₄ -Si μg - ml/l	pH	S C
		STD	0000	0759	3463	2706	0010073	0000	14809								
205		OBS	0000	0759	34628	2706			14809								
		STD	0010	0692	3466	2718	0008950	0010	14785								
		STD	0020	0623	3469	2730	0007661	0018	14759								
205		OBS	0024	0595	34707	2735			14749								
		STD	0030	0543	3474	2744	0006541	0025	14729								
205		OBS	0047	0430	34807	2762			14686								
		STD	0050	0427	3481	2763	0004769	0036	14686								
		STD	0075	0407	3486	2769	0004214	0048	14682								
205		OBS	0096	0396	34877	2771			14681								
		STD	0100	0396	3488	2771	0004000	0058	14682								
		STD	0125	0392	3487	2772	0004013	0068	14684								
205		OBS	0143	0389	34871	2772			14686								
		STD	0150	0387	3487	2772	0003994	0078	14686								
205		OBS	T0192	0379	34878	2773			14690								
		STD	0200	0378	3488	2774	0003890	0098	14691								
205		OBS	0237	0375	34881	2774			14696								
		STD	0250	0373	3487	2773	0003960	0117	14697								
205		OBS	0283	0369	34857	2773			14700								
		STD	0300	0367	3485	2772	0004093	0137	14702								
205		OBS	T0370	0363	34848	2772			14712								
		STD	0400	0365	3486	2773	0004086	0178	14718								
205		OBS	0470	0368	34870	2774			14731								
		STD	0500	0368	3487	2774	0004109	0219	14736								
205		OBS	T0571	0368	34879	2774			14748								
		STD	0600	0368	3488	2774	0004159	0261	14753								
		STD	0700	0368	3488	2774	0004261	0303	14769								
205		OBS	0762	0366	34874	2774			14779								
		STD	0800	0363	3487	2774	0004336	0346	14784								
		STD	0900	0358	3486	2774	0004437	0390	14798								
205		OBS	T0968	0355	34859	2774			14808								
		STD	1000	0355	3486	2774	0004489	0434	14814								
		STD	1100	0356	3486	2774	0004582	0480	14831								
		STD	1200	0357	3486	2774	0004675	0526	14846								
		STD	1300	0358	3487	2775	0004695	0573	14865								
		STD	1400	0359	3487	2775	0004788	0620	14883								
205		OBS	T1486	0360	34885	2776			14898								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	H INDEX	MARSEEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	IO. NO.						10"	1'	MO		OAT	HR. 1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE
311092		S5	56315N	05106 W		186	61	07	21	202	1967	B26	022	3566	15	30	2	4		X1	3	3	0022
		WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS												
		COLOR CODE	TRANS. MT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB															
					22	S07	164	097	082	7	14												
MESSENGR TIME HR. 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ O DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	3 CUT						
		STD	0000	0791	3462	2701	0010565	0000	14821														
202		OBS	0000	0791	34622	2701			14821														
		STD	0010	0784	3463	2703	0010394	0010	14820														
		STD	0020	0750	3465	2709	0009857	0021	14809														
202		OBS	0025	0724	34651	2713			14799														
		STD	0030	0667	3468	2723	0008507	0030	14778														
		STD	0050	0489	3476	2752	0005806	0044	14711														
202		OBS	0051	0482	34768	2753			14708														
		STD	0075	0441	3485	2764	0004642	0057	14696														
		STD	0100	0410	3489	2771	0004045	0068	14688														
202		OBS	0101	0409	34895	2771			14688														
		STD	0125	0398	3489	2772	0003947	0078	14687														
		STD	0150	0387	3489	2773	0003854	0088	14686														
202		OBS	0151	0386	34888	2773			14686														
		STD	0200	0380	3489	2774	0003845	0107	14692														
202		OBS	T0202	0380	34889	2774			14692														
		STD	0250	0376	3489	2774	0003865	0126	14698														
202		OBS	0252	0376	34887	2774			14698														
		STD	0300	0369	3488	2774	0003892	0146	14703														
202		OBS	0302	0369	34875	2774			14704														
		STD	0400	0360	3487	2775	0003960	0185	14716														
202		OBS	T0401	0360	34870	2775			14716														
		STD	0500	0363	3488	2775	0004032	0225	14734														
202		OBS	0504	0363	34876	2775			14735														
		STD	0600	0358	3487	2775	0004112	0266	14748														
202		OBS	T0604	0358	34870	2775			14749														
		STD	0700	0358	3487	2775	0004189	0307	14765														
		STD	0800	0357	3487	2775	0004268	0349	14781														
202		OBS	0805	0357	34868	2775			14782														
		STD	0900	0355	3487	2775	0004340	0392	14797														
		STD	1000	0352	3487	2775	0004394	0436	14812														
202		OBS	T1012	0352	34868	2775			14814														
		STD	1100	0353	3487	2775	0004473	0480	14830														
		STD	1200	0355	3487	2775	0004571	0526	14847														
		STD	1300	0356	3488	2776	0004595	0572	14865														
		STD	1400	0358	3489	2776	0004621	0618	14882														
		STD	1500	0359	3490	2777	0004676	0664	14900														
202		OBS	T1500	0359	34896	2777			14900														

Table VIII. Observed and interpolated oceanographic data for stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 14 August–5 September 1967, prepared from NODC listing No. 31-1157 ML.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR 1/10	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE	
31	1157	ML	56040N	051120W	186	61	08	14	163	1967	B27	001	3475	14	19	3				2	8	0001
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
									22	513	050	114	102	7	14							
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C					
		STD	0000	0981	3458	2668	0013719	0000	14892													
163		OBS	0000	0981	34583	2668			14892													
		STD	0010	0980	3458	2668	0013738	0014	14893													
		STD	0020	0978	3458	2668	0013755	0027	14894													
163		OBS	0026	0977	34575	2668			14894													
		STD	0030	0888	3461	2685	0012130	0040	14862													
163		OBS	0047	0586	34748	2739			14750													
		STD	0050	0568	3475	2742	0006786	0059	14743													
		STD	0075	0447	3478	2758	0005230	0074	14698													
163		OBS	0095	0387	34803	2766			14676													
		STD	0100	0385	3481	2767	0004393	0086	14676													
		STD	0125	0377	3483	2770	0004186	0097	14677													
163		OBS	0140	0373	34835	2770			14678													
		STD	0150	0371	3484	2771	0004104	0107	14679													
163		OBS	T0185	0365	34838	2771			14682													
		STD	0200	0364	3484	2772	0004060	0128	14684													
163		OBS	0230	0363	34840	2772			14689													
		STD	0250	0367	3485	2772	0004049	0148	14694													
163		OBS	0276	0370	34853	2772			14699													
		STD	0300	0368	3486	2773	0004029	0168	14703													
163		OBS	T0360	0367	34864	2773			14712													
		STD	0400	0370	3487	2774	0004064	0209	14720													
163		OBS	0441	0372	34879	2774			14728													
		STD	0500	0370	3488	2774	0004115	0250	14737													
163		OBS	0542	0368	34872	2774			14743													
		STD	0600	0365	3487	2774	0004164	0291	14751													
		STD	0700	0361	3487	2775	0004198	0333	14766													
163		OBS	0723	0360	34874	2775			14770													
		STD	0800	0360	3488	2775	0004220	0375	14783													
		STD	0900	0360	3489	2776	0004245	0417	14799													
163		OBS	T0906	0360	34890	2776			14800													
		STD	1000	0360	3489	2776	0004300	0460	14816													
		STD	1100	0359	3490	2777	0004349	0503	14832													
		STD	1200	0358	3490	2777	0004397	0547	14849													
		STD	1300	0357	3490	2777	0004445	0591	14865													
		STD	1400	0355	3491	2778	0004478	0636	14881													
163		OBS	T1407	0355	34905	2778			14882													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS. INSTR.	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
31	1157	ML	56300N	051032W		186	61	08	15	162	1967	827	002	3475	16	06	1	2		41	7	8	0002
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB											
									12	513	040	096	086	4	14								
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t ?		Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₃ -N μg - dl/l	Si O ₄ -Si μg - dl/l	pH	S C				
		STD	0000	0980	3460	2669		0013592		0000	14891												
162		OBS	0000	0980	34598	2669					14891												
		STD	0010	0975	3460	2670		0013511		0014	14891												
		STD	0020	0969	3460	2671		0013439		0027	14891												
162		OBS	0026	0966	34602	2672					14891												
		STD	0030	0886	3463	2687		0011951		0040	14862												
		STD	0050	0570	3475	2741		0006010		0058	14744												
162		OBS	0051	0558	34754	2743					14739												
		STD	0075	0450	3478	2758		0005255		0074	14699												
		STD	0100	0379	3481	2768		0004340		0086	14674												
162		OBS	0101	0377	34810	2768					14673												
		STD	0125	0374	3482	2769		0004198		0096	14676												
		STD	0150	0370	3484	2771		0004075		0107	14679												
162		OBS	0152	0370	34840	2771					14679												
		STD	0200	0365	3485	2772		0004018		0127	14685												
162		OBS	T0205	0364	34846	2772					14685												
		STD	0250	0361	3485	2773		0004006		0147	14691												
162		OBS	0254	0361	34848	2773					14692												
		STD	0300	0363	3486	2773		0004013		0167	14700												
162		OBS	0304	0363	34856	2773					14701												
		STD	0400	0364	3486	2773		0004076		0207	14718												
162		OBS	T0404	0364	34862	2773					14718												
		STD	0500	0369	3487	2774		0004140		0248	14736												
162		OBS	0504	0369	34873	2774					14737												
		STD	0600	0361	3487	2774		0004147		0290	14750												
162		OBS	0605	0361	34869	2774					14750												
		STD	0700	0361	3488	2775		0004148		0331	14766												
		STD	0800	0360	3488	2775		0004229		0373	14783												
162		OBS	0811	0360	34883	2776					14784												
		STD	0900	0360	3489	2776		0004268		0416	14799												
		STD	1000	0360	3489	2776		0004329		0459	14816												
162		OBS	T1020	0360	34890	2776					14819												
		STD	1100	0360	3489	2776		0004383		0502	14833												
		STD	1200	0359	3490	2777		0004424		0546	14849												
		STD	1300	0357	3490	2777		0004459		0591	14865												
		STD	1400	0356	3490	2778		0004498		0635	14882												
		STD	1500	0353	3491	2778		0004511		0681	14897												
162		OBS	T1558	0352	34910	2779					14907												

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DRIFT DIRECTION	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DR.	HGT	PER	SEA		TYPE	AMT	
311	157	ML	56280N	051015W		186	61	08	16	130	1967	827	003	3475	15	03	3				5	8	0003
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbars)		DRY BULB	WET BULB										
								33		S05	055	103	098	7	14								
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \rho$ OTN. M. x 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₂ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S CC				
		STD	0000	0975	3463	2672	0013297		0000		14890												
130		OBS	0000	0975	34627	2672					14890												
		STD	0010	0967	3463	2673	0013205		0013		14889												
		STD	0020	0959	3462	2675	0013114		0026		14887												
130		OBS	0025	0955	34622	2675					14887												
		STD	0030	0845	3464	2694	0011265		0039		14847												
		STD	0050	0509	3472	2746	0006329		0056		14718												
130		OBS	0050	0509	34720	2746					14718												
		STD	0075	0425	3478	2761	0005000		0070		14688												
130		OBS	0099	0374	34818	2769					14672												
		STD	0100	0374	3482	2769	0004208		0082		14672												
		STD	0125	0368	3483	2771	0004097		0092		14673												
130		OBS	0149	0365	34832	2771					14676												
		STD	0150	0365	3483	2771	0004075		0102		14676												
		STD	0200	0364	3485	2772	0004004		0123		14684												
130		OBS	T0200	0364	34846	2772					14684												
130		OBS	0249	0361	34847	2773					14691												
		STD	0250	0361	3485	2773	0003988		0143		14691												
130		OBS	0298	0362	34851	2773					14700												
		STD	0300	0362	3485	2773	0004035		0163		14700												
130		OBS	T0395	0364	34865	2774					14717												
		STD	0400	0363	3487	2774	0004028		0203		14717												
130		OBS	0496	0359	34865	2774					14731												
		STD	0500	0359	3487	2775	0004038		0243		14732												
130		OBS	0596	0366	34882	2775					14751												
		STD	0600	0366	3488	2775	0004108		0284		14752												
		STD	0700	0364	3488	2775	0004165		0325		14768												
130		OBS	0794	0361	34883	2775					14782												
		STD	0800	0361	3488	2775	0004217		0367		14783												
		STD	0900	0356	3489	2776	0004229		0410		14798												
130		OBS	T0988	0353	34886	2777					14811												
		STD	1000	0353	3489	2777	0004240		0452		14813												
		STD	1100	0353	3489	2777	0004324		0495		14830												
		STD	1200	0354	3489	2777	0004409		0538		14847												
		STD	1300	0354	3490	2778	0004419		0583		14864												
		STD	1400	0354	3490	2778	0004501		0627		14881												
130		OBS	T1452	0354	34904	2778					14890												

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	DRIFT INDIC	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
311157	ML	56361N	050499W		186	60	08	17	195	1967	027	004		3475	11	30	4			6	7		0004
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB															
				19	504	130	100	100	7	13													
MESSNGR TIME HR 1/10	CAST NO.	CARO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S C.C.						
		STD	0000	1016	3459	2663	0014204	0000	14905														
195		OBS	0000	1016	34594	2663			14905														
		STD	0010	1002	3460	2665	0013973	0014	14901														
		STD	0020	0989	3460	2668	0013735	0028	14698														
195		OBS	0027	0979	34606	2670			14896														
		STD	0030	0918	3463	2682	0012441	0041	14874														
		STD	0050	0586	3474	2739	0007077	0061	14750														
195		OBS	0053	0548	34754	2744			14735														
		STD	0075	0457	3479	2756	0005262	0076	14702														
		STD	0100	0386	3481	2767	0004423	0088	14677														
195		OBS	0107	0375	34816	2769			14673														
		STD	0125	0372	3483	2770	0004136	0099	14675														
		STD	0150	0369	3484	2771	0004054	0109	14678														
195		OBS	0161	0368	34841	2771			14679														
		STD	0200	0364	3484	2772	0004049	0129	14684														
195		OBS	T0216	0363	34839	2772			14686														
		STD	0250	0362	3485	2772	0004034	0149	14692														
195		OBS	0270	0361	34849	2773			14695														
		STD	0300	0362	3485	2773	0004042	0170	14700														
195		OBS	0325	0363	34854	2773			14705														
		STD	0400	0363	3486	2773	0004080	0210	14717														
195		OBS	T0430	0363	34860	2773			14722														
		STD	0500	0364	3486	2774	0004133	0251	14734														
195		OBS	0543	0365	34867	2774			14742														
		STD	0600	0366	3487	2774	0004191	0293	14751														
195		OBS	T0652	0366	34880	2775			14760														
		STD	0700	0366	3488	2775	0004187	0335	14766														
		STD	0800	0364	3489	2776	0004206	0377	14784														
195		OBS	0872	0363	34893	2776			14796														
		STD	0900	0362	3489	2776	0004239	0419	14800														
		STD	1000	0360	3489	2776	0004292	0462	14816														
195		OBS	T1092	0357	34895	2777			14830														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	HAUSDEN SQUARE	STATION TIME (GMT)			ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE		CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO DAY HR./10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

311157	ML	56288N	050517W	186	60	08	18	140	1967	827	005	3475	10	33	4			6	7	0005
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		31	S17	030	100	089	7	13	
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MESSNGR TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C
		STD	0000	0978	3460	2670	0013552	0000	14891								
140		OBS	0000	0978	34599	2670			14891								
		STD	0010	0972	3461	2671	0013418	0013	14890								
		STD	0020	0965	3461	2673	0013289	0027	14889								
140		OBS	0026	0961	34616	2674			14889								
		STD	0030	0873	3464	2690	0011681	0039	14857								
		STD	0050	0529	3475	2746	0006331	0057	14727								
140		OBS	0052	0503	34762	2750			14717								
		STD	0075	0433	3479	2761	0004985	0071	14692								
		STD	0100	0382	3483	2769	0004243	0083	14675								
140		OBS	0103	0378	34830	2770			14674								
		STD	0125	0372	3484	2771	0004061	0093	14675								
		STD	0150	0366	3484	2772	0004025	0104	14677								
140		OBS	0155	0365	34841	2772			14677								
		STD	0200	0360	3484	2772	0004007	0124	14682								
140		OBS	T0207	0359	34839	2772			14683								
		STD	0250	0361	3485	2773	0003985	0144	14691								
140		OBS	0257	0361	34855	2773			14693								
		STD	0300	0364	3486	2773	0004014	0164	14701								
140		OBS	0307	0364	34856	2773			14702								
		STD	0400	0357	3485	2773	0004074	0204	14715								
140		OBS	T0406	0357	34851	2773			14715								
		STD	0500	0356	3486	2774	0004079	0245	14731								
140		OBS	0507	0356	34861	2774			14732								
		STD	0600	0355	3487	2775	0004116	0286	14747								
140		OBS	T0608	0355	34865	2775			14748								
		STD	0700	0355	3487	2775	0004180	0327	14763								
		STD	0800	0354	3487	2775	0004236	0369	14780								
140		OBS	0814	0354	34870	2775			14782								
		STD	0900	0353	3487	2775	0004328	0412	14796								
		STD	1000	0351	3486	2775	0004416	0456	14812								
140		OBS	T1021	0351	34862	2775			14815								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSON SQUARE		STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
311	157	ML	56298N	050552W		186	60	08	19	133	1967	627	006	3475	14	33	2			6	2	0006	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
COLOR CODE		TRANS. (m)		DIR.	SPEED OR FORCE	(mb)		DRY BULB	WET BULB														
						33	504	000	111	003	7	14											
MESSENGER TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C						
		STD	0000	0992	3460	2667	0013799	0000	14896														
133		OBS	0000	0992	34596	2667			14896														
		STD	0010	0987	3459	2668	0013762	0014	14896														
		STD	0020	0982	3459	2668	0013733	0028	14895														
133		OBS	0024	0980	34588	2668			14895														
		STD	0030	0858	3464	2692	0011457	0040	14852														
133		OBS	0047	0585	34744	2739			14749														
		STD	0050	0566	3475	2742	0006762	0058	14742														
		STD	0075	0437	3479	2760	0005050	0073	14694														
133		OBS	0093	0360	34815	2768			14673														
		STD	0100	0379	3482	2769	0004258	0085	14674														
		STD	0125	0375	3484	2771	0004091	0095	14677														
133		OBS	0139	0372	34841	2771			14678														
		STD	0150	0369	3484	2771	0004054	0105	14678														
133		OBS	T0187	0361	34838	2772			14681														
		STD	0200	0361	3484	2772	0004019	0126	14683														
133		OBS	0232	0360	34842	2772			14688														
		STD	0250	0360	3485	2773	0004020	0146	14691														
133		OBS	0278	0361	34850	2773			14696														
		STD	0300	0361	3485	2773	0004017	0166	14700														
133		OBS	T0367	0361	34856	2773			14711														
		STD	0400	0361	3486	2774	0004044	0206	14716														
133		OBS	0460	0361	34863	2774			14726														
		STD	0500	0361	3487	2774	0004082	0247	14733														
133		OBS	0552	0360	34870	2775			14741														
		STD	0600	0361	3487	2775	0004116	0288	14750														
		STD	0700	0364	3488	2775	0004157	0329	14768														
133		OBS	0736	0365	34887	2775			14774														
		STD	0800	0360	3488	2775	0004228	0371	14782														
		STD	0900	0353	3488	2776	0004232	0413	14796														
133		OBS	T0918	0352	34875	2776			14799														
		STD	1000	0352	3488	2776	0004305	0456	14813														
		STD	1100	0352	3489	2777	0004344	0499	14829														
		STD	1200	0353	3489	2777	0004391	0543	14846														
		STD	1300	0353	3490	2777	0004430	0587	14863														
		STD	1400	0353	3490	2778	0004468	0631	14880														
133		OBS	T1415	0353	34904	2778			14883														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METERS	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER														
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR.1/10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		TYPE	AMT															
31	1157	ML	56286N	051588W		186	61	08	20	139	1967	827	007		3475	15	32	1			6	6	0007														
						WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																					
COLD CODE	TRANS. (M)	DIR.	SPEED OR FORCE	DRY RULB	WET RULB																																
										31	505	160	094	078	8	14																					
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND SALTY-2107	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C																				
		STD	0000	1000	3460	2666	0013936	0000	14899																												
139		OBS	0000	1000	34595	2666			14899																												
		STD	0010	0988	3460	2668	0013713	0014	14896																												
		STD	0020	0975	3461	2671	0013490	0027	14893																												
139		OBS	0025	0969	34610	2672			14892																												
		STD	0030	0870	3464	2690	0011636	0040	14856																												
		STD	0050	0559	3474	2742	0006754	0058	14739																												
139		OBS	0051	0547	34747	2744			14734																												
		STD	0075	0447	3479	2759	0005155	0073	14698																												
		STD	0100	0381	3482	2768	0004278	0085	14675																												
139		OBS	0101	0379	34823	2769			14674																												
		STD	0125	0375	3484	2771	0004093	0096	14677																												
		STD	0150	0371	3484	2771	0004077	0106	14679																												
139		OBS	0152	0371	34845	2771			14679																												
		STD	0200	0363	3485	2772	0004001	0126	14684																												
139		OBS	T0205	0362	34845	2772			14684																												
		STD	0250	0362	3485	2773	0003998	0146	14692																												
139		OBS	0255	0362	34851	2773			14693																												
		STD	0300	0365	3486	2773	0004031	0166	14701																												
139		OBS	0306	0365	34856	2773			14702																												
		STD	0400	0363	3487	2774	0003991	0206	14717																												
139		OBS	T0407	0363	34874	2775			14718																												
		STD	0500	0363	3488	2775	0004033	0246	14734																												
139		OBS	0510	0363	34876	2775			14736																												
		STD	0600	0363	3487	2774	0004142	0287	14750																												
139		OBS	0612	0363	34872	2774			14752																												
		STD	0700	0363	3487	2774	0004232	0329	14767																												
		STD	0800	0364	3488	2775	0004309	0372	14784																												
139		OBS	0816	0364	34875	2775			14787																												
		STD	0900	0360	3488	2775	0004312	0415	14799																												
		STD	1000	0357	3488	2776	0004360	0458	14815																												
139		OBS	T1028	0356	34884	2776			14819																												
		STD	1100	0356	3489	2776	0004375	0502	14831																												
		STD	1200	0355	3489	2777	0004412	0546	14847																												
		STD	1300	0354	3490	2777	0004448	0590	14864																												
		STD	1400	0354	3490	2778	0004492	0635	14881																												
		STD	1500	0353	3491	2778	0004527	0680	14897																												
139		OBS	T1517	0353	34907	2778			14900																												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT INCH	MARS SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER					
CITY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT				
311	157	ML	56280N	050545W		186	60	08	21	131	1967	527	008	3475	15	20	1				3	1	0008				
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
COLOR CODE		TRANS. (m)		DIR.		SPEED OF FORCE		DRY BULB		WET BULB																	
								19		507		170		094		083		7		14							
MESSING TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-10 ³		Σ Δ D DYN. M. x 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	Σ C								
		STD	0000	1009	3460	2664	0014067		0000		14904																
131		OBS	0000	1009	34597	2664					14902																
		STD	0010	0994	3460	2667	0013852		0014		14898																
		STD	0020	0980	3460	2669	0013631		0028		14895																
131		OBS	0024	0974	34598	2670					14893																
		STD	0030	0853	3464	2693	0011383		0040		14850																
131		OBS	0047	0582	34724	2738					14748																
		STD	0050	0566	3473	2740	0006912		0059		14742																
		STD	0075	0454	3479	2758	0005230		0074		14701																
131		OBS	0095	0397	34626	2767					14681																
		STD	0100	0394	3483	2768	0004332		0086		14680																
		STD	0125	0383	3484	2770	0004171		0096		14680																
131		OBS	0142	0377	34847	2771					14680																
		STD	0150	0375	3485	2771	0004039		0107		14681																
131		OBS	T0191	0368	34858	2773					14685																
		STD	0200	0367	3486	2773	0003952		0126		14686																
		STD	0250	0363	3485	2773	0003986		0146		14692																
131		OBS	0273	0362	34851	2773					14696																
131		OBS	0284	0362	34855	2773					14697																
		STD	0300	0362	3486	2774	0003967		0166		14700																
131		OBS	T0378	0362	34865	2774					14713																
		STD	0400	0361	3487	2774	0004007		0206		14716																
131		OBS	0469	0359	34865	2774					14727																
		STD	0500	0356	3487	2774	0004062		0246		14732																
131		OBS	0563	0357	34864	2774					14742																
		STD	0600	0357	3487	2774	0004136		0287		14748																
		STD	0700	0357	3487	2775	0004206		0329		14764																
131		OBS	0760	0356	34868	2775					14774																
		STD	0800	0355	3487	2775	0004246		0371		14780																
		STD	0900	0351	3488	2776	0004238		0414		14795																
131		OBS	T0967	0350	34880	2776					14806																
		STD	1000	0350	3488	2776	0004267		0456		14812																
		STD	1100	0351	3489	2777	0004320		0499		14829																
		STD	1200	0352	3489	2777	0004372		0543		14846																
		STD	1300	0353	3490	2777	0004426		0587		14863																
		STD	1400	0353	3490	2778	0004478		0631		14880																
		STD	1500	0354	3491	2778	0004531		0676		14898																
131		OBS	T1505	0354	34907	2778					14899																

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH IN METERS	MARS DEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE		CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.						10°	1°		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA			TYPE	AMT	

311157	ML	55230N	050460W	186	50	08	22	193	1967	827	009	3475	14	12	2					1	2		0009
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			19	511	140	124	101	7	14	
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MESSINGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ ρ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C
		STD	0000	1016	3456	2660	0014485	0000	14904								
193		OBS	0000	1016	34556	2660			14904								
		STD	0010	1010	3458	2663	0014234	0014	14904								
		STD	0020	1004	3459	2664	0014086	0029	14903								
193		OBS	0024	1002	34592	2665			14903								
		STD	0030	0832	3459	2692	0011438	0041	14841								
193		OBS	0049	0433	34587	2744			14685								
		STD	0050	0431	3459	2745	0006463	0059	14684								
		STD	0075	0398	3473	2760	0005100	0074	14676								
193		OBS	0097	0380	34816	2768			14674								
		STD	0100	0380	3482	2769	0004268	0085	14674								
		STD	0125	0378	3484	2770	0004121	0096	14678								
193		OBS	0146	0376	34854	2772			14681								
		STD	0150	0375	3485	2771	0004039	0106	14681								
193		OBS	T0196	0366	34848	2772			14684								
		STD	0200	0365	3485	2772	0003984	0126	14685								
193		OBS	0243	0360	34856	2773			14690								
		STD	0250	0361	3486	2774	0003913	0146	14691								
193		OBS	0289	0365	34862	2773			14700								
		STD	0300	0364	3486	2774	0003965	0166	14701								
193		OBS	T0383	0360	34869	2774			14713								
		STD	0400	0360	3487	2775	0003959	0205	14716								
193		OBS	0478	0359	34871	2775			14728								
		STD	0500	0360	3487	2775	0004031	0245	14733								
193		OBS	0574	0361	34875	2775			14745								
		STD	0600	0360	3488	2775	0004094	0286	14749								
		STD	0700	0356	3488	2775	0004128	0327	14764								
193		OBS	0765	0355	34876	2776			14774								
		STD	0800	0355	3488	2776	0004171	0368	14780								
		STD	0900	0355	3488	2776	0004255	0410	14797								
193		OBS	T0956	0355	34884	2776			14806								
		STD	1000	0355	3489	2777	0004263	0453	14814								
		STD	1100	0355	3489	2777	0004345	0496	14831								
		STD	1200	0355	3489	2777	0004427	0540	14847								
		STD	1300	0354	3490	2778	0004422	0584	14864								
		STD	1400	0354	3490	2778	0004503	0629	14881								
193		OBS	T1442	0354	34904	2778			14888								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DUTY BOAT	MARS SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
311157	ML		56288N	051105W		186	61	08	23	211	1967	827	010	3475	18	30	4				2	8	0010	
						WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB													
								28	S05	120	088	067	7	14										
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta D$ DYN. M. X 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO ₂ -N $\mu g - \mu l/l$	NO ₃ -N $\mu g - \mu l/l$	SiO ₄ -Si $\mu g - \mu l/l$	pH	S C						
		STD	0000	0875	3455	2682	0012343		0000	14852														
211		OBS	0000	0875	34547	2682				14852														
		STD	0010	0875	3455	2683	0012310		0012	14854														
		STD	0020	0875	3456	2683	0012278		0025	14855														
		STD	0030	0875	3457	2684	0012252		0037	14857														
211		OBS	0031	0875	34568	2684				14857														
		STD	0050	0590	3469	2734	0007499		0057	14751														
211		OBS	0059	0490	34738	2750				14712														
		STD	0075	0454	3478	2757	0005305		0073	14701														
		STD	0100	0409	3484	2767	0004410		0085	14687														
211		OBS	0119	0385	34859	2771				14680														
		STD	0125	0382	3486	2771	0004026		0095	14680														
		STD	0150	0372	3485	2772	0003994		0105	14680														
211		OBS	0177	0366	34846	2772				14681														
		STD	0200	0367	3485	2772	0004002		0125	14686														
211		OBS	T0235	0368	34860	2773				14692														
		STD	0250	0366	3486	2773	0003956		0145	14694														
211		OBS	0293	0364	34862	2773				14700														
		STD	0300	0365	3486	2773	0003975		0165	14701														
211		OBS	0351	0368	34868	2774				14711														
		STD	0400	0365	3487	2774	0004034		0205	14718														
211		OBS	T0466	0361	34865	2774				14727														
		STD	0500	0359	3487	2774	0004073		0246	14732														
211		OBS	0583	0357	34864	2774				14745														
		STD	0600	0357	3487	2774	0004138		0287	14748														
211		OBS	0699	0358	34868	2775				14765														
		STD	0700	0356	3487	2775	0004210		0328	14765														
		STD	0800	0356	3487	2775	0004266		0371	14780														
		STD	0900	0353	3487	2775	0004312		0414	14796														
211		OBS	0937	0352	34869	2775				14802														
		STD	1000	0353	3487	2775	0004388		0457	14813														
		STD	1100	0353	3487	2775	0004469		0501	14830														
211		OBS	T1186	0354	34873	2775				14844														
		STD	1200	0354	3487	2775	0004533		0546	14847														
		STD	1300	0354	3488	2776	0004579		0592	14864														
		STD	1400	0354	3489	2776	0004618		0638	14881														
		STD	1500	0355	3489	2777	0004655		0684	14898														
		STD	1750	0355	3491	2778	0004755		0802	14940														
211		OBS	T1784	0355	34907	2778				14946														

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH FATHOMS	HARDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT.	PER	SEA		TYPE	AMT	
311157	ML		56300N	050590W		186	60	08	25	130	1967	827	011	3475	11	32	2				2	6	0011
		WATER		WIND		BARO- METER (mba)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																		
						32	S12	060	100	089	7	13											
MESSENGER TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C						
		STD	0000	0863	3454	2684	0012216	0000	14847														
130		OBS	0000	0863	34540	2684			14847														
		STD	0010	0859	3454	2684	0012174	0012	14847														
		STD	0020	0855	3454	2685	0012134	0024	14847														
130		OBS	0027	0852	34540	2685			14848														
		STD	0030	0803	3457	2695	0011175	0036	14830														
		STD	0050	0541	3471	2742	0006768	0054	14731														
130		OBS	0053	0511	34728	2747			14720														
		STD	0075	0451	3480	2759	0005123	0069	14700														
		STD	0100	0405	3485	2768	0004294	0081	14685														
130		OBS	0105	0399	34861	2770			14684														
		STD	0125	0396	3487	2771	0004077	0091	14686														
		STD	0150	0391	3487	2771	0004050	0101	14688														
130		OBS	0158	0390	34872	2772			14689														
		STD	0200	0381	3487	2772	0003988	0121	14692														
130		OBS	T0212	0379	34871	2773			14693														
		STD	0250	0370	3487	2773	0003967	0141	14695														
130		OBS	0265	0368	34862	2773			14697														
		STD	0300	0367	3486	2773	0004014	0161	14702														
130		OBS	0318	0367	34861	2773			14705														
		STD	0400	0363	3486	2774	0004058	0201	14717														
130		OBS	T0428	0362	34861	2774			14721														
		STD	0500	0360	3486	2774	0004113	0242	14732														
130		OBS	0530	0359	34861	2774			14737														
		STD	0600	0359	3486	2774	0004175	0284	14749														
130		OBS	0636	0359	34864	2774			14755														
		STD	0700	0357	3487	2775	0004184	0326	14764														
		STD	0800	0354	3487	2775	0004234	0368	14780														
130		OBS	0851	0353	34871	2775			14788														
		STD	0900	0352	3487	2775	0004280	0410	14796														
		STD	1000	0352	3488	2776	0004339	0453	14812														
130		OBS	T1060	0352	34877	2776			14822														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CITY CODE	IC NO.					10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
31	1157	ML	56308N	050555W	186	00	08	26	135	1967	B27	012	3475	15	18	2				7	3		0012
						WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
COLOR CODE		TRANS. (m)		DIR.	SPEED OR FORCE		DRY BULB		WET BULB														
								16		S03	030	089	083	7	14								
MESSENGER TIME HR. 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	U C				
		STD	0000	0894	3455	2680		0012577		0000	14859												
135		OBS	0000	0894	34554	2680					14859												
		STD	0010	0884	3456	2682		0012422		0012	14857												
		STD	0020	0875	3456	2684		0012267		0025	14855												
135		OBS	0025	0870	34564	2684					14854												
		STD	0030	0767	3452	2697		0011032		0036	14815												
		STD	0050	0456	3435	2723		0008533		0056	14692												
135		OBS	0051	0445	34340	2724					14687												
		STD	0075	0430	3466	2751		0005948		0074	14689												
		STD	0100	0414	3487	2769		0004232		0087	14689												
135		OBS	0101	0413	34880	2770					14689												
		STD	0125	0411	3489	2771		0004081		0097	14692												
		STD	0150	0409	3489	2771		0004087		0107	14696												
135		OBS	0152	0409	34895	2771					14696												
		STD	0200	0402	3490	2772		0004004		0128	14701												
135		OBS	T0202	0402	34898	2772					14701												
		STD	0250	0386	3489	2773		0003943		0148	14702												
135		OBS	0252	0385	34886	2773					14702												
		STD	0300	0373	3487	2774		0003970		0167	14705												
135		OBS	0302	0372	34873	2774					14705												
		STD	0400	0361	3487	2774		0003971		0207	14716												
135		OBS	T0401	0361	34868	2774					14717												
		STD	0500	0360	3487	2775		0004046		0247	14733												
135		OBS	0501	0360	34870	2775					14733												
		STD	0600	0360	3487	2775		0004117		0288	14749												
135		OBS	0602	0360	34872	2775					14749												
		STD	0700	0358	3487	2775		0004166		0329	14765												
		STD	0800	0356	3488	2775		0004213		0371	14781												
135		OBS	0803	0356	34876	2775					14781												
		STD	0900	0354	3488	2776		0004268		0414	14796												
		STD	1000	0351	3488	2776		0004314		0457	14812												
135		OBS	1004	0351	34877	2776					14813												
		STD	1100	0352	3488	2776		0004384		0500	14829												
		STD	1200	0353	3488	2776		0004477		0544	14846												
		STD	1300	0354	3489	2777		0004496		0589	14864												
		STD	1400	0355	3490	2777		0004515		0634	14881												
		STD	1500	0356	3491	2778		0004564		0680	14899												
135		OBS	T1500	0356	34906	2778					14899												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH INDICATOR	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR./1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

WATER		WIND		BARO- METER (mbars)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		14	504	140	100	089	7	14	

MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C
		STD	0000	0871	3453	2681	0012439	0000	14850								
145		OBS	0000	0871	34526	2681			14850								
		STD	0010	0872	3452	2681	0012515	0012	14852								
		STD	0020	0873	3451	2680	0012590	0025	14854								
145		OBS	0025	0873	34511	2680			14855								
		STD	0030	0778	3456	2698	0010895	0037	14820								
		STD	0050	0491	3471	2748	0006203	0054	14711								
145		OBS	0051	0480	34719	2750			14707								
		STD	0075	0437	3481	2762	0004900	0068	14694								
		STD	0100	0411	3487	2769	0004190	0079	14688								
145		OBS	0100	0411	34872	2769			14688								
		STD	0125	0414	3489	2771	0004106	0089	14693								
		STD	0150	0416	3490	2771	0004081	0100	14699								
145		OBS	0151	0416	34901	2771			14699								
		STD	0200	0404	3489	2772	0004067	0120	14702								
145		OBS	T0206	0402	34891	2772			14702								
		STD	0250	0388	3488	2773	0004009	0140	14703								
145		OBS	0252	0387	34884	2773			14703								
		STD	0300	0374	3487	2773	0004015	0160	14705								
145		OBS	0303	0373	34865	2773			14705								
		STD	0400	0365	3487	2774	0004006	0200	14718								
145		OBS	T0405	0364	34872	2774			14718								
		STD	0500	0360	3486	2774	0004108	0241	14732								
145		OBS	0504	0360	34861	2774			14733								
		STD	0600	0362	3487	2774	0004175	0282	14750								
145		OBS	0606	0362	34867	2774			14751								
		STD	0700	0360	3487	2775	0004214	0324	14766								
		STD	0800	0357	3487	2775	0004270	0367	14781								
145		OBS	0808	0357	34871	2775			14782								
		STD	0900	0355	3487	2775	0004323	0410	14797								
		STD	1000	0353	3487	2775	0004375	0453	14813								
145		OBS	1010	0353	34872	2775			14814								
		STD	1100	0354	3488	2776	0004431	0497	14830								
		STD	1200	0354	3488	2776	0004482	0542	14847								
		STD	1300	0355	3489	2776	0004541	0587	14864								
		STD	1400	0355	3489	2777	0004592	0633	14881								
		STD	1500	0356	3489	2777	0004651	0679	14898								
145		OBS	T1512	0356	34895	2777			14900								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	GRIFF INCHES	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
311	157	ML	56325N	051010W		186	61	08	28	187	1967	627	014	3475	15	10	1				6	8	0014
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
									05	503	090	128	111	7	14								
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CC					
		STD	0000	0902	3446	2671	0013410		0000	14861													
187		OBS	0000	0902	34458	2671				14861													
		STD	0010	0887	3447	2674	0013117		0013	14857													
		STD	0020	0872	3450	2679	0012691		0026	14854													
187		OBS	0025	0865	34520	2682				14852													
		STD	0030	0786	3455	2696	0011082		0038	14823													
		STD	0050	0540	3468	2740	0006981		0056	14731													
187		OBS	0051	0531	34681	2741				14727													
		STD	0075	0456	3479	2758	0005251		0071	14704													
		STD	0100	0407	3486	2769	0004239		0083	14666													
187		OBS	0101	0406	34861	2769				14686													
		STD	0125	0405	3487	2770	0004169		0094	14690													
		STD	0150	0404	3488	2771	0004109		0104	14693													
187		OBS	0153	0404	34881	2771				14694													
		STD	0200	0392	3488	2772	0004018		0124	14697													
187		OBS	T0204	0391	34882	2772				14697													
		STD	0250	0382	3487	2773	0004022		0145	14701													
187		OBS	0256	0381	34873	2773				14701													
		STD	0300	0375	3487	2773	0004026		0165	14706													
187		OBS	0307	0374	34869	2773				14706													
		STD	0400	0369	3487	2773	0004070		0205	14720													
187		OBS	0408	0368	34867	2773				14721													
		STD	0500	0364	3487	2774	0004098		0246	14734													
187		OBS	0509	0363	34868	2774				14735													
		STD	0600	0362	3487	2774	0004154		0287	14750													
187		OBS	T0610	0362	34871	2774				14752													
		STD	0700	0360	3487	2775	0004199		0329	14766													
		STD	0800	0357	3487	2775	0004241		0371	14781													
187		OBS	0807	0357	34874	2775				14782													
		STD	0900	0355	3488	2775	0004292		0414	14797													
		STD	1000	0354	3488	2776	0004348		0457	14813													
187		OBS	1000	0354	34877	2776				14813													
		STD	1100	0355	3488	2776	0004423		0501	14831													
		STD	1200	0357	3489	2776	0004445		0545	14848													
		STD	1300	0358	3489	2776	0004543		0590	14865													
		STD	1400	0359	3490	2777	0004565		0636	14883													
187		OBS	T1477	0360	34905	2777				14896													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSJOEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	IQ. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
311	157	ML	56340N	050540W	186	60	08	29	130	1967	B27	015	3475	15	20	4			50	7	8		0015
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE											
								21	S20	078	089	089	6	14									
MESSNGR TIME HR 1/10	CSTY NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		Σ Δ C DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SIO ₄ -Si μg - dl/l	pH	S CC					
		STD	0000	0881	3453	2680	0012529		0000	14854													
130		OBS	0000	0881	34534	2680				14854													
		STD	0010	0880	3453	2680	0012546		0013	14855													
		STD	0020	0880	3453	2680	0012562		0025	14857													
130		OBS	0028	0879	34531	2680				14858													
		STD	0030	0842	3455	2688	0011888		0037	14844													
		STD	0050	0550	3472	2741	0006821		0056	14735													
130		OBS	0050	0550	34717	2741				14735													
		STD	0075	0462	3479	2757	0005338		0071	14704													
		STD	0100	0408	3486	2769	0004272		0083	14687													
130		OBS	0101	0407	34860	2769				14686													
		STD	0125	0406	3488	2771	0004104		0094	14690													
130		OBS	0149	0404	34888	2771				14693													
		STD	0150	0404	3489	2771	0004048		0104	14693													
130		OBS	T0197	0394	34886	2772				14697													
		STD	0200	0392	3488	2772	0004033		0124	14697													
130		OBS	0243	0378	34867	2772				14698													
		STD	0250	0378	3487	2773	0004012		0144	14699													
130		OBS	0290	0379	34883	2774				14706													
		STD	0300	0377	3488	2774	0003972		0164	14707													
130		OBS	T0382	0364	34868	2774				14713													
		STD	0400	0364	3487	2774	0004016		0204	14718													
130		OBS	0473	0364	34866	2774				14730													
		STD	0500	0362	3487	2774	0004097		0245	14733													
130		OBS	0560	0360	34867	2774				14742													
		STD	0600	0360	3487	2775	0004132		0286	14749													
		STD	0700	0360	3487	2775	0004217		0328	14766													
130		OBS	0745	0360	34872	2775				14773													
		STD	0800	0359	3487	2775	0004271		0370	14782													
		STD	0900	0358	3487	2775	0004329		0413	14798													
130		OBS	0940	0357	34875	2775				14805													
		STD	1000	0357	3488	2776	0004364		0456	14815													
		STD	1100	0358	3488	2776	0004454		0501	14832													
		STD	1200	0359	3488	2775	0004543		0546	14849													
		STD	1300	0359	3489	2776	0004557		0591	14866													
		STD	1400	0360	3490	2777	0004573		0637	14883													
130		OBS	T1472	0360	34901	2777				14895													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA	
31	1157	ML	56300N	051000W		186	61	08	30	130	1967	B27 016	3475	35	16	2		50	6	8	0016
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB									
									06	S15	040	100	094	6	19						
MESSING TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	NO ₃ -N µg - ml/l	SiO ₄ -Si µg - ml/l	pH	S C		
		STD	0000	0887	3451	2677		0012813		0000	14856										
130		OBS	0000	0887	34508	2677					14856										
		STD	0010	0884	3451	2678		0012779		0013	14856										
		STD	0020	0880	3451	2678		0012747		0026	14857										
130		OBS	0026	0878	34508	2679					14857										
		STD	0030	0805	3455	2693		0011352		0038	14830										
		STD	0050	0519	3473	2746		0006367		0055	14723										
130		OBS	0053	0487	34748	2751					14710										
		STD	0075	0435	3480	2761		0004954		0069	14693										
		STD	0100	0398	3484	2768		0004298		0081	14682										
130		OBS	0104	0394	34847	2769					14681										
		STD	0125	0394	3485	2769		0004210		0092	14685										
		STD	0150	0395	3486	2770		0004164		0102	14689										
130		OBS	0156	0395	34866	2771					14690										
		STD	0200	0409	3490	2772		0004064		0123	14704										
130		OBS	T0208	0412	34904	2772					14707										
		STD	0250	0385	3487	2772		0004083		0143	14702										
130		OBS	0258	0382	34866	2772					14702										
		STD	0300	0378	3487	2773		0004064		0163	14707										
130		OBS	0308	0377	34870	2773					14708										
		STD	0400	0370	3487	2774		0004064		0204	14720										
130		OBS	T0407	0369	34866	2773					14721										
		STD	0500	0358	3486	2774		0004099		0245	14732										
130		OBS	0510	0357	34856	2774					14733										
		STD	0600	0358	3486	2774		0004191		0286	14748										
130		OBS	0614	0358	34859	2774					14750										
		STD	0700	0356	3486	2774		0004251		0329	14764										
		STD	0800	0354	3486	2774		0004313		0371	14780										
130		OBS	0820	0354	34864	2775					14783										
		STD	0900	0354	3487	2775		0004342		0415	14796										
		STD	1000	0353	3487	2775		0004404		0458	14813										
130		OBS	T1025	0353	34869	2775					14817										
		STD	1100	0354	3487	2775		0004481		0503	14830										
		STD	1200	0355	3487	2775		0004579		0548	14847										
		STD	1300	0357	3488	2776		0004604		0594	14865										
		STD	1400	0358	3488	2776		0004702		0641	14882										
		STD	1500	0360	3489	2776		0004727		0688	14900										
130		OBS	1530	0360	34891	2776					14905										
		STD	1750	0357	3491	2778		0004747		0806	14941										
		STD	2000	0352	3493	2780		0004728		0925	14982										
152		OBS	T2018	0351	34933	2780					14985										
		STD	2500	0331	3494	2783		0004747		1161	15059										
152		OBS	2523	0329	34937	2783					15062										
		STD	3000	0271	3490	2785		0004424		1391	15119										
152		OBS	3029	0266	34900	2786					15122										
152		OBS	T3360	0206	34892	2790					15154										
152		OBS	3461	0186	34904	2793					15163										

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DEPT PROCT	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	1157	ML	56300N	050580W		186	60	08	31	131	1967	827	017	3475	16	3	4				3	6		0017
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

		30	S15	067	083	056	7	14	
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MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-30P	S Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C
		STD	0000	0870	3448	2678	0012795	0000	14849								
131		OBS	0000	0870	34476	2678			14849								
		STD	0010	0868	3448	2678	0012733	0013	14850								
		STD	0020	0865	3449	2679	0012670	0025	14851								
131		OBS	0024	0864	34490	2680			14851								
		STD	0030	0726	3453	2703	0010403	0037	14799								
131		OBS	0049	0408	34662	2753			14676								
		STD	0050	0409	3467	2754	0005637	0053	14676								
		STD	0075	0430	3482	2763	0004751	0066	14691								
131		OBS	0099	0440	34908	2769			14700								
		STD	0100	0440	3491	2769	0004208	0077	14701								
		STD	0125	0436	3492	2771	0004117	0088	14703								
131		OBS	0148	0433	34921	2771			14706								
		STD	0150	0433	3492	2771	0004104	0098	14706								
131		OBS	T0197	0431	34925	2771			14713								
		STD	0200	0429	3492	2771	0004122	0118	14713								
131		OBS	0246	0406	34913	2773			14710								
		STD	0250	0405	3491	2773	0003992	0139	14711								
131		OBS	0297	0392	34892	2773			14713								
		STD	0300	0391	3489	2773	0004043	0159	14713								
131		OBS	T0398	0374	34882	2774			14722								
		STD	0400	0374	3488	2774	0004031	0199	14722								
		STD	0500	0366	3488	2774	0004065	0240	14735								
131		OBS	0500	0366	34876	2774			14735								
		STD	0600	0366	3488	2775	0004122	0281	14752								
131		OBS	0602	0366	34882	2775			14752								
		STD	0700	0362	3488	2775	0004152	0322	14767								
		STD	0800	0358	3488	2776	0004195	0364	14782								
131		OBS	0810	0358	34882	2776			14783								
		STD	0900	0357	3488	2776	0004264	0406	14798								
		STD	1000	0356	3488	2776	0004343	0449	14814								
131		OBS	T1014	0356	34881	2776			14817								
		STD	1100	0356	3489	2776	0004398	0493	14831								
		STD	1200	0357	3489	2776	0004455	0537	14848								
		STD	1300	0357	3489	2777	0004511	0582	14865								
		STD	1400	0357	3490	2777	0004567	0627	14882								
		STD	1500	0358	3490	2777	0004624	0673	14899								
131		OBS	T1561	0358	34904	2777			14910								

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MARS SQUARE	STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10°	1°	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DIR	HGT		PER	SEA		TYPE
311	157	ML	56240N	050085W	186 60	09	02	133	1967	027	018	3475	16	29	2			3	2		0018	
						WATER		WIND		AIR TEMP. °C				SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTH								
										29	516	790	089	061	7	13						
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	TEMP °C			
		STD	0000	0998	3452	2660		0014451		0000	14897											
133		OBS	0000	0998	34521	2660					14897											
		STD	0010	0998	3452	2660		0014494		0014	14899											
		STD	0020	0998	3452	2660		0014538		0029	14900											
133		OBS	0025	0998	34514	2660					14901											
		STD	0030	0892	3457	2681		0012487		0043	14863											
		STD	0050	0563	3473	2741		0006869		0062	14741											
133		OBS	0050	0563	34731	2741					14741											
		STD	0075	0461	3478	2757		0005380		0077	14703											
		STD	0100	0397	3481	2766		0004513		0090	14681											
133		OBS	0101	0395	34815	2767					14681											
		STD	0125	0392	3484	2769		0004261		0101	14684											
		STD	0150	0388	3486	2771		0004094		0111	14686											
133		OBS	0153	0387	34861	2771					14686											
		STD	0200	0375	3486	2772		0004007		0131	14689											
133		OBS	0203	0374	34856	2772					14689											
		STD	0250	0371	3486	2772		0004045		0151	14696											
133		OBS	0252	0371	34856	2772					14696											
		STD	0300	0365	3485	2773		0004038		0172	14701											
133		OBS	0304	0364	34854	2773					14702											
		STD	0400	0363	3486	2773		0004065		0212	14717											
133		OBS	T0404	0363	34860	2773					14718											
		STD	0500	0362	3486	2774		0004115		0253	14733											
		STD	0600	0360	3487	2774		0004163		0294	14749											
133		OBS	0605	0360	34866	2774					14750											
		STD	0700	0361	3488	2775		0004182		0336	14766											
		STD	0800	0362	3489	2776		0004205		0378	14783											
133		OBS	0808	0362	34887	2776					14785											
		STD	0900	0360	3489	2776		0004250		0420	14799											
		STD	1000	0357	3489	2776		0004299		0463	14815											
133		OBS	T1016	0357	34889	2776					14817											
		STD	1100	0357	3489	2777		0004350		0506	14831											
		STD	1200	0356	3490	2777		0004395		0550	14848											
		STD	1300	0356	3490	2777		0004448		0594	14865											
		STD	1400	0355	3490	2778		0004492		0639	14881											
		STD	1500	0354	3491	2778		0004536		0684	14898											
133		OBS	T1565	0354	34909	2778					14909											

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DUR	MARDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER									
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT										
311	157	ML	56295N	050558W		186	60	09	03	146	1967	827	019		3475	13	32	2				8	5		0019							
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																	
COLOR CODE		TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																										
								32	516	130	078	061	7	14																		
MESSAGING TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - μl/l	TOTAL-P μg - μl/l	NO ₂ -N μg - μl/l	NO ₃ -N μg - μl/l	SiO ₄ -Si μg - μl/l	pH	S CC															
		STD	0000	0870	3451	2680	0012536	0000	14850																							
146		OBS	0000	0870	34511	2680			14850																							
		STD	0010	0870	3451	2680	0012583	0013	14851																							
		STD	0020	0871	3451	2680	0012629	0025	14853																							
146		OBS	0027	0871	34503	2680			14854																							
		STD	0030	0825	3453	2689	0011789	0037	14838																							
		STD	0050	0577	3466	2733	0007581	0057	14745																							
146		OBS	0050	0577	34658	2733			14745																							
		STD	0075	0464	3479	2757	0005337	0073	14705																							
146		OBS	0099	0399	34858	2770			14683																							
		STD	0100	0399	3486	2770	0004158	0085	14683																							
		STD	0125	0394	3486	2770	0004131	0095	14685																							
146		OBS	0145	0390	34861	2771			14686																							
		STD	0150	0389	3486	2771	0004097	0105	14687																							
146		OBS	0191	0381	34862	2772			14690																							
		STD	0200	0379	3486	2772	0004035	0126	14691																							
146		OBS	0239	0374	34863	2773			14695																							
		STD	0250	0373	3486	2773	0004005	0146	14697																							
146		OBS	0285	0371	34868	2773			14702																							
		STD	0300	0370	3487	2773	0003989	0166	14704																							
146		OBS	T0377	0365	34870	2774			14714																							
		STD	0400	0364	3487	2774	0004001	0206	14718																							
146		OBS	0463	0361	34870	2774			14727																							
		STD	0500	0361	3487	2774	0004056	0246	14733																							
146		OBS	0551	0360	34870	2775			14741																							
		STD	0600	0359	3487	2775	0004106	0287	14749																							
		STD	0700	0357	3488	2775	0004139	0328	14765																							
146		OBS	0722	0356	34877	2775			14768																							
		STD	0800	0354	3488	2776	0004190	0370	14780																							
146		OBS	0890	0352	34875	2776			14794																							
		STD	0900	0352	3488	2776	0004258	0412	14796																							
		STD	1000	0353	3488	2776	0004332	0455	14813																							
		STD	1100	0355	3488	2776	0004406	0499	14830																							
		STD	1200	0356	3489	2776	0004472	0543	14848																							
		STD	1300	0357	3489	2776	0004546	0588	14865																							
146		OBS	T1312	0357	34888	2776			14867																							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	GRT INDCT	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR, 1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

31	1157	ML	55480N	049510W		185	59	09	04	139	1967	B27	020		3475	14	32	5			6	8	0020
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WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		31	513	250	083	078	6	14	

		31	513	250	083	078	6	14	
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MESSENGER TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g \cdot ml/l$	TOTAL-P $\mu g \cdot ml/l$	NO ₂ -N $\mu g \cdot ml/l$	NO ₃ -N $\mu g \cdot ml/l$	Si O ₄ -Si $\mu g \cdot ml/l$	pH	Σ C
		STD	0000	0906	3459	2681	0012500	0000	14864								
		OBS	0000	0906	34589	2681			14864								
139		STD	0010	0905	3459	2681	0012496	0012	14865								
		STD	0020	0904	3459	2681	0012499	0025	14866								
139		OBS	0027	0903	34591	2681			14867								
		STD	0030	0837	3462	2694	0011296	0037	14843								
139		OBS	0049	0511	34763	2750			14720								
		STD	0050	0507	3476	2750	0005977	0054	14718								
		STD	0075	0431	3480	2761	0004942	0068	14691								
139		OBS	0099	0384	34827	2769			14676								
		STD	0100	0384	3483	2769	0004232	0079	14676								
		STD	0125	0375	3483	2770	0004166	0090	14676								
139		OBS	0145	0369	34835	2771			14677								
		STD	0150	0368	3484	2771	0004082	0100	14678								
139		OBS	T0192	0362	34837	2772			14682								
		STD	0200	0364	3484	2772	0004049	0120	14684								
139		OBS	0236	0368	34859	2773			14692								
		STD	0250	0366	3486	2773	0003971	0140	14694								
139		OBS	0282	0363	34858	2773			14698								
		STD	0300	0363	3486	2773	0003978	0160	14701								
139		OBS	T0370	0363	34866	2774			14712								
		STD	0400	0361	3487	2774	0004000	0200	14716								
139		OBS	0458	0359	34866	2774			14725								
		STD	0500	0360	3487	2774	0004063	0241	14732								
139		OBS	0543	0360	34869	2774			14740								
		STD	0600	0359	3487	2775	0004125	0281	14749								
		STD	0700	0358	3487	2775	0004197	0323	14765								
139		OBS	0718	0358	34873	2775			14768								
		STD	0800	0358	3488	2775	0004235	0365	14782								
139		OBS	T0898	0358	34879	2775			14798								
		STD	0900	0358	3488	2775	0004296	0408	14798								
		STD	1000	0358	3488	2776	0004355	0451	14815								
		STD	1100	0359	3489	2776	0004420	0495	14832								
		STD	1200	0359	3489	2776	0004478	0540	14849								
		STD	1300	0360	3489	2776	0004543	0585	14866								
		STD	1400	0360	3490	2777	0004600	0630	14883								
139		OBS	T1409	0360	34897	2777			14885								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE		CLOUD CODES		NOGC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA			TYPE	AMT	

31	1157	ML	54575N	050495W		186	40	09	05	135	1967	827	021		3475	15	22	1				6	7	0021
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			21	514	200	089	067	7	14
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MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ O DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C
		STD	0000	0960	3446	2662	0014302	0000	14882								
135		OBS	0000	0960	34459	2662			14882								
		STD	0010	0960	3447	2662	0014277	0014	14884								
		STD	0020	0961	3447	2663	0014253	0029	14886								
135		OBS	0026	0961	34477	2663			14887								
		STD	0030	0880	3453	2680	0012602	0042	14858								
		STD	0050	0561	3472	2740	0006927	0062	14740								
135		OBS	0051	0549	34726	2742			14735								
		STD	0075	0457	3478	2757	0005344	0077	14702								
		STD	0100	0395	3484	2768	0004305	0089	14681								
135		OBS	0101	0393	34837	2769			14680								
		STD	0125	0366	3484	2770	0004176	0100	14681								
		STD	0150	0378	3485	2771	0004072	0110	14682								
135		OBS	0151	0378	34850	2771			14682								
		STD	0200	0373	3486	2772	0004030	0130	14688								
135		OBS	T0203	0373	34855	2772			14689								
		STD	0250	0369	3486	2773	0003996	0150	14695								
135		OBS	0253	0369	34860	2773			14695								
		STD	0300	0364	3486	2773	0003982	0170	14701								
135		OBS	0302	0364	34861	2773			14701								
		STD	0400	0365	3487	2774	0004011	0210	14718								
135		OBS	T0401	0365	34873	2774			14718								
		STD	0500	0362	3488	2775	0004007	0250	14733								
135		OBS	0500	0362	34878	2775			14733								
135		OBS	0598	0362	34883	2775			14750								
		STD	0600	0362	3488	2775	0004057	0290	14750								
		STD	0700	0358	3488	2776	0004098	0331	14765								
135		OBS	0799	0355	34883	2776			14780								
		STD	0800	0355	3488	2776	0004149	0372	14780								
		STD	0900	0354	3488	2776	0004213	0414	14797								
		STD	1000	0353	3489	2776	0004277	0457	14813								
135		OBS	T1002	0353	34885	2776			14813								
		STD	1100	0353	3489	2777	0004326	0500	14830								
		STD	1200	0354	3489	2777	0004411	0543	14847								
		STD	1300	0354	3490	2778	0004423	0588	14864								
		STD	1400	0355	3491	2778	0004436	0632	14861								
		STD	1500	0355	3492	2779	0004447	0676	14898								
135		OBS	T1533	0355	34922	2779			14904								

Table IX. Observed and interpolated oceanographic data for stations taken by USCGC SPENCER at Ocean Station BRAVO, 1-20 October 1967, prepared from NODC listing No. 31-1174 SC.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
CTRY CODE	IO. NO.					10'	1"	MO	DAY		HR./1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT
31	1174	SC	5634 N	05053 W	186	60	10	01	113	1967	B28	001	3658	15	20	0	2		06	5	7	0001	
						WATER		WIND				AIR TEMP. °C											
						COLOR		DIR.		BARO- METER		DRY BULB		WET BULB		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
						TRANS. (m)		SPEED OR FORCE															
								18		S07		031		076		072		7		14			
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Delta \rho$ G/M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₂ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S C						
		STD	0000	0863	3459	2687	0011882	0000	14848														
	113	OBS	0000	0863	34585	2687			14848														
		STD	0010	0863	3459	2687	0011886	0012	14849														
		STD	0020	0863	3459	2688	0011891	0024	14851														
	113	OBS	0025	0863	34590	2688			14852														
		STD	0030	0786	3462	2702	0010562	0035	14824														
		STD	0050	0541	3472	2743	0006694	0052	14731														
	113	OBS	0051	0531	34729	2745			14728														
		STD	0075	0444	3479	2759	0005123	0067	14697														
		STD	0100	0386	3482	2768	0004327	0079	14677														
	113	OBS	0103	0362	34828	2769			14676														
		STD	0125	0379	3484	2770	0004131	0089	14678														
		STD	0150	0377	3484	2771	0004126	0100	14681														
	113	OBS	0150	0377	34841	2771			14681														
	113	OBS	0196	0376	34846	2771			14689														
		STD	0200	0375	3484	2771	0004159	0120	14689														
	113	OBS	0248	0368	34836	2771			14694														
		STD	0250	0368	3484	2771	0004134	0141	14694														
	113	OBS	0296	0366	34841	2772			14701														
		STD	0300	0366	3484	2772	0004150	0162	14702														
	113	OBS	T0392	0366	34842	2772			14717														
		STD	0400	0366	3484	2772	0004216	0204	14718														
	113	OBS	0491	0365	34863	2773			14733														
		STD	0500	0365	3486	2773	0004151	0246	14735														
	113	OBS	0589	0364	34864	2774			14749														
		STD	0600	0364	3487	2774	0004212	0287	14751														
		STD	0700	0364	3487	2774	0004254	0330	14767														
	113	OBS	0799	0363	34877	2775			14784														
		STD	0800	0363	3488	2775	0004261	0372	14784														
		STD	0900	0361	3488	2775	0004323	0415	14800														
	113	OBS	T0985	0360	34882	2775			14813														
		STD	1000	0360	3488	2775	0004381	0459	14816														
		STD	1100	0358	3488	2776	0004425	0503	14832														
		STD	1200	0357	3489	2776	0004481	0547	14848														
		STD	1300	0356	3489	2776	0004535	0592	14865														
		STD	1400	0356	3489	2777	0004601	0638	14881														
		STD	1500	0355	3489	2777	0004654	0684	14898														
	113	OBS	T1523	0355	34892	2777			14902														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
31	1174	SC	5629 N	05109 W	186	61	10	03 105	1967	828	002	3658	15	34	1	2			7	5		0002
WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS													
COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																
			12	505	125	083	061	7	14													
MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	C C					
		STD	0000	0851	3459	2689	0011705	0000	14843													
105		OBS	0000	0851	34585	2689			14843													
		STD	0010	0842	3459	2691	0011577	0012	14842													
		STD	0020	0831	3459	2692	0011420	0023	14839													
105		OBS	0024	0826	34590	2693			14838													
		STD	0030	0826	3459	2694	0011328	0035	14839													
105		OBS	0047	0791	34604	2700			14828													
		STD	0050	0756	3462	2706	0010177	0056	14816													
		STD	0075	0518	3476	2749	0006161	0076	14727													
105		OBS	0095	0399	34832	2768			14682													
		STD	0100	0395	3483	2768	0004328	0090	14681													
		STD	0125	0380	3483	2770	0004186	0100	14679													
105		OBS	0143	0375	34835	2770			14679													
		STD	0150	0377	3484	2770	0004134	0111	14681													
105		OBS	0191	0382	34876	2773			14691													
		STD	0200	0379	3487	2773	0003975	0131	14691													
105		OBS	0241	0372	34869	2773			14695													
		STD	0250	0373	3487	2773	0003960	0151	14697													
105		OBS	0288	0374	34871	2773			14703													
		STD	0300	0373	3487	2773	0003990	0171	14705													
105		OBS	T0386	0369	34881	2775			14718													
		STD	0400	0368	3488	2775	0003946	0210	14720													
105		OBS	0480	0363	34893	2776			14731													
		STD	0500	0361	3489	2776	0003907	0250	14733													
105		OBS	T0570	0356	34880	2776			14743													
		STD	0600	0357	3488	2776	0004006	0289	14748													
		STD	0700	0359	3489	2776	0004061	0329	14765													
105		OBS	0766	0360	34893	2776			14777													
		STD	0800	0359	3489	2777	0004112	0370	14782													
		STD	0900	0355	3490	2777	0004136	0412	14797													
105		OBS	T0966	0353	34897	2777			14807													
		STD	1000	0353	3490	2778	0004168	0453	14813													
		STD	1100	0354	3490	2778	0004256	0495	14830													
		STD	1200	0354	3490	2777	0004345	0538	14847													
		STD	1300	0355	3491	2778	0004359	0582	14864													
		STD	1400	0355	3491	2778	0004447	0626	14881													
		STD	1500	0356	3491	2778	0004533	0671	14899													
105		OBS	T1512	0356	34914	2778			14901													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR./10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
311174	SC	5626 N	05100 W	186	61	10	04	101	1967	B28	003	3658	10	20	1	2				5	7		0003		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB										
						18	510	902	100	094	7	13													
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C								
		STD	0000	0849	3459	2690	0011646	0000	14843																
	101	OBS	0000	0849	34589	2690			14843																
		STD	0010	0848	3459	2690	0011654	0012	14844																
		STD	0020	0847	3459	2690	0011661	0023	14845																
	101	OBS	0024	0846	34586	2690			14845																
		STD	0030	0766	3462	2705	0010281	0034	14816																
	101	OBS	0049	0561	34710	2739			14739																
		STD	0050	0556	3471	2740	0006928	0051	14737																
		STD	0075	0446	3476	2756	0005400	0067	14697																
	101	OBS	0098	0384	34797	2766			14675																
		STD	0100	0384	3480	2767	0004458	0079	14676																
		STD	0125	0381	3480	2767	0004451	0090	14678																
	101	OBS	0149	0378	34802	2767			14681																
		STD	0150	0378	3480	2767	0004422	0101	14681																
		STD	0200	0373	3483	2770	0004222	0123	14688																
	101	OBS	T0200	0373	34829	2770			14688																
	101	OBS	0247	0364	34829	2771			14692																
		STD	0250	0364	3483	2771	0004169	0144	14692																
	101	OBS	0297	0366	34857	2773			14701																
		STD	0300	0366	3486	2773	0004008	0164	14702																
	101	OBS	T0390	0364	34869	2774			14716																
		STD	0400	0364	3487	2774	0004008	0205	14718																
	101	OBS	0491	0363	34869	2774			14732																
		STD	0500	0363	3487	2774	0004085	0245	14734																
	101	OBS	0589	0360	34869	2774			14747																
		STD	0600	0360	3487	2775	0004132	0286	14749																
		STD	0700	0360	3487	2775	0004217	0328	14766																
	101	OBS	0782	0359	34875	2775			14779																
		STD	0800	0359	3488	2775	0004216	0370	14782																
		STD	0900	0356	3488	2776	0004266	0412	14797																
	101	OBS	T0966	0354	34892	2777			14808																

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT			
311174	SC	5623 N	05117 W	186	61	10	05	189	1967	B28	004	3658	04	33	5	2			5	8		0004			
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB										
						29	516	793	044	039	7	08													
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S C								
		STD	0000	0730	3457	2706	0010125	0000	14797																
	189	OBS	0000	0730	34568	2706			14797																
		STD	0010	0731	3457	2706	0010157	0010	14798																
		STD	0020	0731	3457	2705	0010189	0020	14800																
		STD	0030	0732	3456	2705	0010228	0031	14802																
	189	OBS	0033	0732	34564	2705			14803																
		STD	0050	0553	3467	2737	0007207	0048	14736																
	189	OBS	0064	0446	34738	2755			14695																
		STD	0075	0440	3476	2757	0005306	0064	14694																
		STD	0100	0427	3480	2762	0004896	0076	14694																
		STD	0125	0417	3482	2765	0004667	0088	14694																
	189	OBS	0129	0415	34826	2765			14694																
		STD	0150	0409	3483	2766	0004534	0100	14695																
	189	OBS	0193	0396	34836	2768			14697																
		STD	0200	0394	3484	2768	0004383	0122	14697																
		STD	0250	0381	3484	2770	0004289	0144	14700																
	189	OBS	T0258	0379	34837	2770			14700																
	189	OBS	03210	0372	34858	2772																			
	189	OBS	03870	0366	34847	2772																			

REFERENCE CRDY CODE	SHIP ID. NO.	SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						10°	1°	MO	DAY	HR	1/10		CRUISE NO.	STATION NUMBER			DIR	HGT PER	SEA	TYPE		AMT		
311174		SC	5627 N	05102 W		186	61	10	08	110	1967	828	005	3858	09	31	2	2			5	6	0005	
		WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS												
COLOR CODE		TRANS. (m)	DIR.	SPEED OR FORCE	METER (mba)	DRY BULB	WET BULB	VIS. CODE																
						23	510	003	017	011	7	12												

MESSINGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C C
		STD	0000	0784	3459	2699	0010734	0000	14818								
	110	OBS	0000	0784	34586	2699			14818								
		STD	0010	0779	3459	2701	0010633	0011	14818								
		STD	0020	0775	3460	2702	0010533	0021	14818								
		STD	0030	0770	3461	2703	0010432	0032	14818								
	110	OBS	0049	0761	34620	2705			14817								
		STD	0050	0751	3462	2707	0010085	0052	14814								
		STD	0075	0534	3471	2742	0006749	0073	14733								
	110	OBS	0098	0410	34782	2762			14686								
		STD	0100	0408	3479	2763	0004775	0088	14686								
		STD	0125	0390	3482	2768	0004391	0099	14683								
	110	OBS	0146	0380	34835	2770			14682								
		STD	0150	0379	3484	2770	0004154	0110	14682								
	110	OBS	T0196	0374	34841	2771			14688								
		STD	0200	0374	3484	2771	0004142	0131	14688								
	110	OBS	0239	0372	34845	2771			14694								
		STD	0250	0370	3485	2772	0004079	0151	14695								
	110	OBS	0286	0365	34856	2773			14699								
		STD	0300	0365	3486	2773	0004020	0171	14701								
	110	OBS	T0374	0365	34860	2773			14714								
		STD	0400	0364	3486	2773	0004068	0212	14718								
	110	OBS	0465	0363													
		STD	0500	0362	3486	2774	0004112	0253	14733								
	110	OBS	T0550	0361	34866	2774			14741								
		STD	0600	0361	3487	2774	0004146	0294	14750								
		STD	0700	0362	3489	2776	0004088	0335	14767								
	110	OBS	0739	0362	34892	2776			14773								
		STD	0800	0362	3489	2776	0004146	0376	14784								
		STD	0900	0361	3490	2777	0004190	0418	14800								
	110	OBS	T0936	0360	34899	2777			14805								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER				
						10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT			
311174	SC	5632 N	05048 W	186	60	10	09	125	1967	B28	006	3658	10	22	0	2			8	6		0006				
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
COLOR CODE		TRANS. (m)		DIR.	SPEED OR FORCE		METER (mba)		DRY BULB		WET BULB		VIS. CODE													
					22		502		297		094		067		8		13									

MESSINGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C C
		STD	0000	0787	3459	2699	0010754	0000	14819								
	125	OBS	0000	0787	34589	2699			14819								
		STD	0010	0784	3459	2700	0010733	0011	14820								
		STD	0020	0782	3459	2700	0010720	0021	14820								
	125	OBS	0026	0780	34588	2700			14821								
		STD	0030	0726	3462	2710	0009733	0032	14801								
		STD	0050	0512	3474	2748	0006212	0048	14720								
	125	OBS	0052	0496	34748	2750			14714								
		STD	0075	0442	3479	2760	0005102	0062	14696								
		STD	0100	0402	3481	2765	0004564	0074	14683								
	125	OBS	0102	0400	34814	2766			14683								
		STD	0125	0391	3481	2767	0004484	0085	14683								
		STD	0150	0384	3480	2767	0004474	0096	14684								
	125	OBS	0155	0383	34803	2767			14684								
		STD	0200	0383	3485	2771	0004166	0118	14692								
	125	OBS	0208	0383	34851	2771			14694								
		STD	0250	0381	3486	2771	0004136	0139	14700								
	125	OBS	0259	0381	34860	2772			14701								
		STD	0300	0381	3487	2772	0004088	0159	14708								
	125	OBS	0311	0381	34877	2773			14710								
		STD	0400	0372	3488	2774	0004010	0200	14721								
	125	OBS	T0413	0371	34882	2774			14723								
		STD	0500	0368	3487	2774	0004128	0240	14736								
	125	OBS	0518	0367	34865	2773			14738								
		STD	0600	0366	3487	2774	0004199	0282	14752								
	125	OBS	0622	0366	34875	2774			14755								
		STD	0700	0367	3488	2775	0004222	0324	14769								
		STD	0800	0369	3489	2775	0004251	0367	14786								
	125	OBS	0831	0369	34893	2775			14792								
		STD	0900	0368	3489	2776	0004308	0409	14803								
		STD	1000	0363	3489	2776	0004335	0453	14817								
	125	OBS	T1038	0361	34893	2776			14823								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INCHES	MARS DEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE	
311	174	SC	5630 N	05100 W		186	61	10	11	134	1967	B28	007	3658	12	29	0	2		5	6	0007
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
						COLOR CODE		TRANS. DIR.		SPEED OR FORCE		DRY BULB		WET BULB								
								31		S10		227		044		039		7		14		

MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	NO ₂ -N $\mu g - ml/l$	SiO ₄ -Si $\mu g - ml/l$	pH	S C
		STD	0000	0706	3458	2710	0009700	0000	14787								
134		OBS	0000	0706	34582	2710			14787								
		STD	0010	0707	3458	2710	0009729	0010	14789								
		STD	0020	0708	3458	2710	0009759	0019	14791								
134		OBS	0020	0708	34582	2710			14791								
		STD	0030	0709	3458	2710	0009766	0029	14793								
134		OBS	0041	0709	34586	2710			14795								
		STD	0050	0622	3464	2726	0008265	0047	14763								
		STD	0075	0446	3475	2756	0005445	0064	14697								
134		OBS	0084	0406	34778	2763			14682								
		STD	0100	0392	3478	2764	0004725	0077	14679								
		STD	0125	0379	3477	2765	0004656	0089	14677								
134		OBS	0125	0379	34770	2765			14677								
		STD	0150	0381	3480	2767	0004477	0100	14683								
134		OBS	T0168	0383	34821	2768			14687								
		STD	0200	0374	3484	2771	0004149	0122	14688								
134		OBS	0209	0372	34848	2772			14689								
		STD	0250	0368	3485	2772	0004074	0142	14694								
134		OBS	0250	0368	34848	2772			14694								
		STD	0300	0365	3485	2772	0004073	0163	14701								
134		OBS	T0326	0364	34852	2773			14705								
		STD	0400	0366	3486	2773	0004102	0204	14718								
134		OBS	0409	0366	34860	2773			14720								
134		OBS	0487	0365	34864	2774			14732								
		STD	0500	0364	3487	2774	0004126	0245	14734								
		STD	0600	0361	3487	2774	0004143	0286	14750								
134		OBS	0644	0360	34872	2775			14756								
		STD	0700	0360	3488	2775	0004143	0328	14766								
134		OBS	T0798	0360	34888	2776			14782								
		STD	0800	0360	3489	2776	0004168	0369	14783								
		STD	0900	0359	3489	2776	0004226	0411	14799								
		STD	1000	0358	3489	2776	0004284	0454	14815								
		STD	1100	0355	3489	2777	0004316	0497	14831								
		STD	1200	0352	3490	2777	0004347	0540	14846								
134		OBS	T1211	0352	34896	2777			14848								

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DUTY INDIC	MARSDEN SQUARE		STATION TIME IGMTI		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODE STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

31	1174	SC	5630 N	05100 W		180	61	10	14	144	1967	828 008	3628	14	31	3	5			8	6	0008
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VISI- BILITY	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			31	S10	193	050	039	7	14
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MESSAGE TIME HR /10	CAS- T NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SIO ₄ -Si μg - ml/l	pH	3 CO ₂
		STD	0000	0699	3462	2714	0009354	0000	14785								
144		OBS	0000	0699	34616	2714			14785								
		STD	0010	0699	3462	2714	0009363	0009	14787								
		STD	0020	0698	3462	2714	0009373	0019	14788								
144		OBS	0020	0698	34616	2714			14788								
		STD	0030	0698	3462	2714	0009374	0028	14790								
144		OBS	0040	0698	34620	2714			14791								
		STD	0050	0609	3468	2731	0007805	0045	14758								
		STD	0075	0447	3479	2759	0005155	0061	14698								
144		OBS	0081	0422	34805	2763			14689								
		STD	0100	0401	3482	2766	0004478	0074	14683								
144		OBS	0122	0385	34829	2769			14680								
		STD	0125	0384	3483	2769	0004256	0084	14680								
		STD	0150	0380	3484	2770	0004164	0095	14683								
144		OBS	T0166	0377	34847	2771			14684								
		STD	0200	0370	3485	2772	0004049	0115	14687								
144		OBS	0209	0369	34848	2772			14688								
		STD	0250	0373	3486	2772	0004069	0136	14696								
144		OBS	0253	0373	34856	2772			14697								
		STD	0300	0369	3486	2773	0004039	0156	14703								
144		OBS	0343	0367	34864	2773			14709								
		STD	0400	0368	3487	2774	0004038	0196	14719								
144		OBS	0434	0368	34872	2774			14725								
		STD	0500	0369	3488	2774	0004064	0237	14750								
144		OBS	0527	0369	34884	2775			14741								
		STD	0600	0368	3488	2775	0004112	0278	14753								
		STD	0700	0366	3488	2775	0004182	0319	14769								
144		OBS	0714	0366	34884	2775			14771								
		STD	0800	0363	3489	2776	0004194	0361	14784								
		STD	0900	0359	3490	2777	0004184	0403	14799								
144		OBS	T0906	0359	34896	2777			14800								
		STD	1000	0359	3490	2777	0004231	0445	14816								
		STD	1100	0358	3491	2778	0004236	0487	14832								
		STD	1200	0358	3491	2778	0004314	0530	14849								
		STD	1300	0357	3491	2778	0004391	0574	14865								
144		OBS	T1395	0357	34915	2778			14881								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OUT- BOAT NO.	MARSOEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- TNER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT
31	1174	SC	5630 N	05100 W		186	61	10	15	1967	B28	009	365d	24	32	2	5		6	8		0009	
						WATER		WIND		AIR TEMP. °C													
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
								31		510	207	050	039	7	16								
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. x 10 ²	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C						
		STD	0000	0700	3458	2711	0009643	0000	14785														
135		OBS	0000	0700	34579	2711			14785														
		STD	0010	0700	3459	2712	0009572	0010	14787														
		STD	0020	0699	3460	2713	0009508	0019	14788														
135		OBS	0024	0699	34603	2713			14789														
		STD	0030	0699	3460	2713	0009500	0029	14790														
135		OBS	0047	0697	34600	2713			14792														
		STD	0050	0673	3461	2717	0009137	0047	14783														
		STD	0075	0507	3472	2747	0006336	0067	14722														
135		OBS	0096	0420	34774	2761			14690														
		STD	0100	0416	3478	2762	0004932	0081	14689														
		STD	0125	0399	3481	2766	0004557	0093	14686														
135		OBS	0141	0392	34817	2767			14686														
		STD	0150	0392	3482	2767	0004435	0104	14688														
135		OBS	0186	0390	34821	2768			14693														
		STD	0200	0387	3483	2769	0004356	0126	14694														
135		OBS	0232	0380	3484d	2771			14696														
		STD	0250	0375	3485	2771	0004152	0147	14697														
135		OBS	0278	0369	34844	2772			14699														
		STD	0300	0367	3484	2772	0004138	0168	14702														
135		OBS	T0372	0365	34844	2772			14713														
		STD	0400	0366	3485	2772	0004171	0209	14718														
135		OBS	0460	0367	34856	2773			14729														
		STD	0500	0367	3486	2773	0004229	0251	14735														
135		OBS	T0550	0368	34856	2773			14744														
		STD	0600	0368	3486	2773	0004293	0294	14752														
		STD	0700	0368	3487	2774	0004306	0337	14769														
135		OBS	0748	0367	34871	2774			14777														
		STD	0800	0365	3487	2774	0004329	0380	14785														
		STD	0900	0360	3488	2775	0004312	0423	14799														
135		OBS	T0943	0359	34883	2776			14806														
		STD	1000	0359	3488	2776	0004354	0467	14816														
		STD	1100	0358	3489	2776	0004411	0510	14832														
		STD	1200	0357	3489	2776	0004466	0555	14848														
		STD	1300	0356	3489	2777	0004513	0600	14865														
		STD	1400	0355	3489	2777	0004567	0645	14881														
135		OBS	T1461	0354	34894	2777			14891														
		STD	1500	0354	3490	2778	0004576	0691	14897														
		STD	1750	0350	3491	2779	0004655	0806	14938														
156		OBS	T1972	0347	34922	2780			14975														
		STD	2000	0346	3492	2780	0004704	0923	14979														
156		OBS	T2438	0313	34930	2784			15040														

REFERENCE		SHIP CODE	LATITUDE ° '"/10	LONGITUDE ° '"/10	DMRT INDCTR	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT	
31	1174	SC	5628 N	05058 W		180	60	10	16	104	1967	828 010	3658	10	33	1	3			5	7		0010	
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB												
									26	S10	180	050	039	7	13									
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P μg - σt/l	TOTAL-P μg - σt/l	NO ₂ -N μg - σt/l	NO ₃ -N μg - σt/l	Si O ₄ -Si μg - σt/l	pH	Σ C						
		STD	0000	0704	3451	2705	0010195		0000	14786														
104		OBS	0000	0704	34512	2705				14786														
		STD	0010	0703	3453	2707	0010064		0010	14787														
		STD	0020	0702	3455	2708	0009917		0020	14789														
104		OBS	0026	0701	34558	2709				14789														
		STD	0030	0701	3456	2709	0009839		0030	14790														
		STD	0050	0698	3456	2711	0009711		0050	14792														
104		OBS	0050	0698	34577	2711				14792														
		STD	0075	0517	3471	2745	0006524		0070	14726														
		STD	0100	0405	3478	2763	0004819		0084	14684														
104		OBS	0101	0402	34784	2763				14683														
		STD	0125	0397	3478	2764	0004759		0096	14685														
		STD	0150	0391	3478	2764	0004727		0108	14687														
104		OBS	0151	0391	34779	2764				14687														
		STD	0200	0380	3481	2767	0004460		0131	14690														
104		OBS	0202	0379	34807	2768				14690														
		STD	0250	0376	3483	2770	0004313		0153	14697														
104		OBS	0254	0375																				
		STD	0300	0367	3485	2772	0004105		0174	14702														
104		OBS	0304	0366	34850	2772				14702														
		STD	0400	0370	3485	2772	0004211		0215	14720														
104		OBS	T0406	0370	34850	2772				14721														
		STD	0500	0363	3486	2773	0004170		0257	14733														
104		OBS	0508	0362	34858	2773				14735														
		STD	0600	0361	3488	2775	0004069		0298	14750														
104		OBS	0611	0361	34882	2775				14752														
		STD	0700	0360	3488	2776	0004117		0339	14766														
		STD	0800	0358	3488	2776	0004179		0381	14782														
104		OBS	0817	0358																				
		STD	0900	0357	3489	2776	0004240		0423	14798														
		STD	1000	0355	3489	2776	0004293		0466	14814														
104		OBS	T1024	0355	34886	2776				14818														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRAFT FOOT	MARS SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
311	174	SC	5632 N	05057 W		186	60	10	17	098	1967	028	011	3658	17	22	2	2			5	7	0011
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
COLOR CODE		TRANS. (M)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
						18	S11			108	072	061	7	14									
MESSENGER TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	T C						
		STD	0000	0683	3461	2715	0009212	0000	14779														
098		OBS	0000	0683	34607	2715			14779														
		STD	0010	0689	3461	2715	0009277	0009	14783														
		STD	0020	0694	3461	2714	0009363	0019	14786														
098		OBS	0022	0695	34614	2714			14787														
		STD	0030	0694	3462	2715	0009316	0028	14788														
098		OBS	0045	0691	34626	2716			14789														
		STD	0050	0650	3465	2723	0008543	0046	14774														
		STD	0075	0487	3474	2751	0005963	0064	14714														
		STD	0100	0391	3480	2766	0004528	0077	14679														
098		OBS	0102	0386	34803	2767			14677														
		STD	0125	0383	3481	2767	0004396	0088	14679														
098		OBS	0142	0380	34815	2768			14681														
		STD	0150	0378	3482	2768	0004331	0099	14682														
098		OBS	T0184	0372	34815	2769			14685														
		STD	0200	0370	3482	2769	0004297	0121	14686														
098		OBS	0238	0366	34815	2770			14691														
		STD	0250	0364	3482	2770	0004243	0142	14692														
098		OBS	0288	0359	34823	2771			14696														
		STD	0300	0359	3483	2771	0004201	0163	14698														
		STD	0400	0361	3484	2772	0004185	0205	14716														
098		OBS	0408	0361	34842	2772			14717														
		STD	0500	0360	3486	2773	0004151	0247	14732														
098		OBS	0513	0360	34858	2774			14735														
		STD	0600	0355	3486	2774	0004151	0288	14747														
098		OBS	T0615	0354	34862	2774			14749														
		STD	0700	0356	3486	2774	0004243	0330	14764														
098		OBS	0719	0356																			
		STD	0800	0356	3485	2773	0004403	0373	14780														
		STD	0900	0356	3485	2773	0004482	0418	14797														
		STD	1000	0355	3485	2773	0004561	0463	14813														
098		OBS	T1070	0355	34846	2773			14825														
		STD	1100	0355	3485	2773	0004641	0509	14830														
		STD	1200	0355	3485	2773	0004722	0556	14847														
		STD	1300	0354	3486	2774	0004716	0603	14863														
		STD	1400	0354	3487	2775	0004723	0650	14880														
		STD	1500	0354	3488	2776	0004729	0698	14897														
098		OBS	T1652	0353	34897	2777			14923														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HAUSDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CITY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TPN		AMT
311	174	SC	5627 N	05102 W	186 61	10	18	189	1967	828	012	3658	15	24	2	3			8 6		0012		
		WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS												
COLOR CODE	TRANS. INT	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																		
					27	507	152	072	039	7	14												
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - at/l$	TOTAL-P $\mu g - at/l$	NO ₂ -N $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	SiO ₄ -Si $\mu g - at/l$	pH	Σ C						
		STD	0000	0723	3458	2708	0009949	0000	14794														
189		OBS	0000	0723	34579	2708			14794														
		STD	0010	0721	3458	2708	0009935	0010	14795														
		STD	0020	0720	3458	2708	0009930	0020	14796														
189		OBS	0024	0719	34583	2708			14796														
		STD	0030	0712	3459	2710	0009768	0030	14795														
189		OBS	0049	0666	34622	2719			14780														
		STD	0050	0658	3463	2721	0008794	0048	14777														
		STD	0075	0487	3474	2751	0005963	0067	14714														
189		OBS	0098	0389	34799	2766			14677														
		STD	0100	0388	3480	2766	0004498	0080	14677														
		STD	0125	0379	3481	2768	0004356	0091	14678														
189		OBS	0148	0374	34815	2769			14680														
		STD	0150	0374	3482	2769	0004254	0102	14680														
189		OBS	0199	0371	34842	2771			14687														
		STD	0200	0371	3484	2771	0004104	0123	14687														
189		OBS	0249	0365	34852	2773			14693														
		STD	0250	0365	3485	2772	0004029	0143	14693														
		STD	0300	0361	3485	2773	0004062	0163	14700														
189		OBS	0300	0361	34846	2773			14700														
		STD	0400	0362	3485	2773	0004130	0204	14717														
189		OBS	T0402	0362	34854	2773			14717														
		STD	0500	0361	3486	2774	0004109	0245	14733														
189		OBS	0500	0361	34863	2774			14733														
		STD	0600	0363	3488	2775	0004093	0286	14751														
189		OBS	T0675	0365	34887	2775			14764														
		STD	0700	0364	3489	2775	0004135	0327	14768														
		STD	0800	0360	3489	2776	0004184	0369	14783														
189		OBS	0802	0360	34886	2776			14783														
		STD	0900	0358	3489	2776	0004232	0411	14799														
		STD	1000	0356	3489	2776	0004278	0454	14814														
189		OBS	T1013	0356	34890	2777			14816														
		STD	1100	0355	3489	2777	0004331	0497	14831														
		STD	1200	0354	3489	2777	0004385	0540	14847														
		STD	1300	0353	3490	2777	0004432	0584	14863														
		STD	1400	0353	3490	2778	0004497	0629	14880														
		STD	1500	0353	3490	2778	0004555	0674	14897														
189		OBS	T1512	0353	34902	2778			14899														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	ALGON 1/10	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	
31	1174	SC	5630 N	05100 W		186	61	10	19	110	1967	B28	013	3658	15	23	0	4			5 6	0013

WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
			19	S06	217	072	056	7	14

MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ol/l}$	TOTAL-P $\mu\text{g} - \text{ol/l}$	NO ₂ -N $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	SiO ₄ -Si $\mu\text{g} - \text{ol/l}$	pH	S C
		STD	0000	0659	3455	2714	0009344	0000	14768								
110		OBS	0000	0659	34548	2714			14768								
		STD	0010	0659	3455	2714	0009321	0009	14770								
		STD	0020	0656	3456	2715	0009261	0019	14771								
110		OBS	0024	0655	34560	2715			14771								
		STD	0030	0651	3456	2716	0009170	0028	14770								
110		OBS	0049	0639	34578	2719			14769								
		STD	0050	0633	3459	2721	0008776	0046	14767								
		STD	0075	0502	3478	2752	0005831	0064	14720								
110		OBS	0097	0431	34890	2769			14696								
		STD	0100	0430	3489	2769	0004252	0077	14696								
		STD	0125	0425	3489	2769	0004219	0087	14698								
110		OBS	0147	0420	34891	2770			14700								
		STD	0150	0419	3489	2770	0004174	0098	14700								
110		OBS	0197	0404	34906	2773			14701								
		STD	0200	0402	3490	2773	0003966	0118	14701								
110		OBS	0246	0384	34870	2772			14701								
		STD	0250	0384	3487	2772	0004065	0138	14701								
110		OBS	0296	0379	34887	2774			14707								
		STD	0300	0379	3489	2774	0003940	0158	14708								
110		OBS	T0396	0368	34862	2775			14719								
		STD	0400	0368	3488	2775	0003968	0198	14719								
110		OBS	0493	0359	34862	2774			14731								
		STD	0500	0359	3486	2774	0004087	0238	14732								
		STD	0600	0357	3487	2775	0004069	0279	14748								
110		OBS	T0669	0356	34882	2776			14759								
		STD	0700	0356	3488	2776	0004087	0320	14764								
110		OBS	0789	0357	34882	2776			14779								
		STD	0800	0357	3488	2776	0004179	0361	14781								
		STD	0900	0355	3488	2776	0004240	0403	14797								
110		OBS	T0984	0354	34882	2776			14811								
		STD	1000	0354	3488	2776	0004312	0446	14813								
		STD	1100	0355	3488	2776	0004401	0489	14830								
		STD	1200	0355	3488	2776	0004490	0534	14847								
		STD	1300	0356	3488	2776	0004578	0579	14864								
		STD	1400	0357	3488	2776	0004666	0625	14882								
110		OBS	T1486	0357	34882	2776			14896								

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	MARS SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT PER SEA	TYPE		AMT		
311	174	SC	5630 N	05055 W	186	60	10	20	106	1967	828	014	3638	11	18	3	4		06	5	7	0014
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbs)		DRY BULB	WET BULB													
				13	518	044		094	089				4	14								
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	S C					
		STD	0000	0708	3458	2710	0009726	0000	14788													
106	OBS	0000	0708	34582	2710				14788													
	STD	0010	0708	3458	2710	0009757	0010	14790														
106	OBS	0018	0707	34578	2710				14791													
	STD	0020	0706	3458	2710	0009750	0019	14791														
	STD	0030	0702	3458	2711	0009712	0029	14791														
106	OBS	0038	0699	34590	2712				14791													
	STD	0050	0566	3468	2736	0007286	0046	14741														
106	OBS	0072	0407	34774	2762				14680													
	STD	0075	0405	3477	2762	0004840	0061	14680														
	STD	0100	0389	3477	2764	0004725	0073	14677														
106	OBS	0108	0386	34770	2764				14677													
	STD	0125	0385	3479	2766	0004566	0085	14680														
106	OBS	0146	0382	34817	2768				14683													
	STD	0150	0381	3482	2768	0004324	0096	14683														
106	OBS	0181	0375	34851	2772				14686													
	STD	0200	0370	3483	2770	0004184	0117	14687														
106	OBS	0216	0367	34825	2770				14688													
	STD	0250	0366	3484	2772	0004114	0138	14693														
106	OBS	T0291	0365	34848	2772				14700													
	STD	0300	0365	3485	2772	0004073	0159	14701														
106	OBS	0349	0363	34857	2773				14709													
	STD	0400	0363	3485	2773	0004140	0200	14717														
106	OBS	T0415	0363	34848	2772				14719													
	STD	0500	0362	3486	2774	0004142	0241	14733														
106	OBS	0554	0361	34868	2774				14742													
	STD	0600	0360	3487	2775	0004132	0282	14749														
106	OBS	T0697	0358	34872	2775				14764													
	STD	0700	0358	3487	2775	0004180	0324	14765														
	STD	0800	0358	3488	2775	0004235	0366	14782														
	STD	0900	0358	3488	2776	0004289	0409	14798														
	STD	1000	0358	3488	2776	0004343	0452	14815														
	STD	1100	0358	3489	2776	0004396	0495	14832														
106	OBS	T1110	0358	34888	2776				14834													

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